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ABSTRACT

Testimony at this hearing included presentations on (or entitled): (1) implications of teacher training for Hispanic Americans (M. Susana Navarro); (2) "My Vision of the Teaching Profession" (Henrietta Schwartz); (3) "Preparing California School Leaders: An Analysis of Supply, Demand, and Training" (William Gerritz, Julia Koppich, James W. Guthrie); (4) "Reform in Teacher Education: The Missing Link" (Fannie Wiley Preston); (5) teacher education in Nevada (Sue Strand); (6) violence (such as physical and psychological abuse and discrimination) in education (Jordan Riak); (7) "Second-Order Change and the Reconceptualization of the Teaching-Learning Process" (Mark Phillips); (8) "Teacher Education at a Crossroad" (Edna Mitchell); (9) teacher certification regulations (Gerald A. Fisher); (10) "A University-Schools Partnership: Prospects and Promises" (Dan Andersen and Bonnie Morgan); (11) educational reform needs (George C. Shaw); and (12) "Some Reflections on the Honorable Profession of Teaching" (Trish Stoddart, David J. Losk, and Charles S. Benson). (CB)

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TESTIMONY PRESENTED AT AN OPEN HEARING OF THE NATIONAL COMMISSION ON EXCELLENCE IN TEACHER EDUCATION (San Francisco, California, October 22-23, 1984).

National Commission on Excellence in Teacher Education, Washington, DC.

SP 025 590

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MALDEF

TESTIMONY
BEFORE THE
NATIONAL COMMISSION ON EXCELLENCE
IN TEACHER EDUCATION

October 23, 1984

San Francisco, California

by

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Commissioners and invited guests my name is Susana Navarro, and I direct research and policy analysis for MALDEF, the Mexican American Legal Defense and Educational Fund. I appreciate this opportunity to present our views regarding teacher training and its implications for Hispanics at all educational levels.

The Mexican American Legal Defense and Educational Fund (MALDEF) is a national, civil rights organization dedicated to ensuring the civil rights of Americans of Hispanic descent. With offices in San Francisco, Washington, D.C., Los Angeles, San Antonio, Chicago, and Denver, MALDEF has for over a decade devoted itself to guaranteeing constitutional rights in the areas of education, employment, voting rights, and immigration. Since its inception in 1968, one of MALDEF's greatest areas of concern has been the education of Hispanic students at all levels.

Despite the tremendous growth and increasing influence of Hispanics in American society, the Hispanic population remains poorly educated, underemployed and generally lacking in marketable skills and opportunities. Nearly 60 percent of Hispanic adults do not hold a high school degree, according to 1980 census figures. The Hispanic drop out rate is 3 times greater than that of whites and 1-1/2 times greater than that of blacks. Hispanic students who do remain in school fall behind in great numbers; 24 percent of Hispanic 14-20 year olds are enrolled two grades behind their classmates, more than twice as high as percentages for Anglo students.

Of the Hispanics that do graduate from secondary schools, less than half enter a college or university. Most Hispanics enroll in two-year institutions. For every 100 Hispanic first graders who begin the education process 7 complete college, three times fewer than Anglos and about half as many as Blacks.

The Hispanic public school population is growing significantly as a result of the phenomenal growth of the Hispanic population in this country. Hispanics and Blacks now outnumber Anglo pupils in most of the country's 50 largest central city school districts. In Texas, Hispanics make up over 40 percent of the pre-kindergarten population, and in Los Angeles Hispanics make up two-thirds of the School District's kindergarten class. Because the Hispanic population continues to grow at a very high rate, it is projected that by the year 2000, minorities will comprise a majority of the public school population in these two states.

What are the implications of this tremendous growth and past educational deficits of Hispanics for the public school systems of this country? First, unless current patterns are changed, a larger proportion of both elementary and secondary school students will be two or more years below grade level and unable to meet the ever increasing high school graduation requirements imposed on them. Second, fewer Hispanics students will graduate from high school and fewer will enter four-year colleges and universities. Finally, more and more students will leave the educational system without the training and diplomas needed to compete in the job market.

What can be done to turn this system around? While we recognize that all actors in the educational arena -- policymakers, principals, and school staff as well as parents and students -- must begin to alter attitudes and behavior, we believe the teacher remains key in this process.

We would like to address two issues relative to teacher preparation programs: The decreasing number of minority students entering and completing teacher preparation programs and earning certificates, and, the need to develop effective training programs to assist teachers and administrators in understanding and working with minority students.

As part of the focus in the past few years on the type of training received by elementary school students, and the quality education movement of the last year and a half, tests of teacher competence in the basic skills have increased in use. Almost 30 states now test, or will soon begin testing of teachers prior to certification. In addition, many states, numbering over 20, now also require such exams, or similar tests, prior to admission to a teacher preparation program. While we are fully in support of teacher competence in the basic skills, we are concerned about the possibility of misuse of scores, resulting in exclusion of minority students from such programs.

Because tests are not perfectly precise, and error of measurement is a regular part of any test, interpretation of test scores must include thinking of scores not as points but as ranges. For that reason, strict cutoff scores or minimums may well involve a serious misuse of the tests and result in exclusion of minority individuals or others who do not test well. For example, a student scoring slightly below the cutoff may actually be at a higher level of competence but because of a large measurement error in his or her score, ability may be underestimated.

We strongly urge this commission to recommend to teacher preparation institutions that test scores be used according to test-use guidelines and that they be used, not as screening devices, but, as diagnostic instruments. Used as diagnostic instruments, such tests can then signal not only the teacher preparation department but the learning center of special remediation needed by particular students. Such remediation would be expected in increase passage rates of minorities on tests such as the NTE and CBEST.

Second, I wish to address the issue of general teacher training. As the California Achievement Council notes, "Teachers and administrators frequently report that they feel unprepared, either by background or training, to respond effectively to the educational needs of poor and minority students." This is demonstrated by teachers' low degree of interaction with minority students compared to their interaction with white students, and ultimately, in teachers' low expectations of minority pupils. While many agree that teacher attitudes toward minority students should be improved, few know how to do this. Similarly, little attention has focused on the skills and abilities that should be developed in teachers, in order to improve their effectiveness with minority students. We, therefore, recommend, that this commission bring together a group of experts, including teachers from predominantly minority schools, representatives from major schools of education, and experts on improving teacher expectations and teaching and classroom management in non-tracked classrooms. This group should be given the charge of devising programs in these areas for pre-service and in service teacher training. Not until the bulk of teachers and administrators are able to effectively teach minority students will these students begin to benefit from the educational experience and achieve at adequate levels. Development of programs for training teachers and administrators in how best to teach such students is central in achieving this goal.

For most minority students, education is the only way by which they can hope to gain employment and economic security in the future. Thus, stakes are tremendously high for these students. We hope that this commission will place high priority on the concerns of Hispanic, Black and other minority students as it develops its recommendations.

Thank you for the opportunity to share our thoughts on this important topic with you.

MY VISION OF THE TEACHING PROFESSION

Henrietta Schwartz
Dean, School of Education
San Francisco State University

In the best of all possible worlds, good teachers should be teaching in good schools in a good society. Not only should good teachers be working in good schools, but they should also be acting on the expectation that they have a major responsibility to make their schools good.

The American vision of a good society is that of a humane democracy in which the public schools are our chief socialization agents outside the home, transmitting the core values of self-reliance and egalitarianism, imparting the knowledge and skills necessary for competence in our culture and cultivating the appreciation and affirmation of diversity in our world. In a democracy, people make knowledgeable decisions about individual and collective well-being and growth through the processes of deliberation, discussion, debate and the application of reason.

It follows, then, that the schools in a democracy and particularly those persons functioning as teachers, should instruct and prepare children to be competent adults, give them practice in knowledge discovery and skill acquisition, give them practice in discussion, debate, deliberation and decision-making about themselves and others and give them practice in developing a mutuality of functioning with their peers and adults. Teachers must be learned adults in good standing in the mainstream of their community, skilled in leading neophytes in these complex processes which comprise learning. Schools and teachers must be supported by a matrix of individuals and institutions if their efforts are to be successful.

The centrality of the teachers' role in this socialization process called education must be recognized by a variety of institutions, schools, administrations, universities, community organizations, state agencies, business and industry and by important individuals in the roles of principal, superintendent, school board member, professor, parent, legislator, employer, etc. But, most of all, the fact that the teacher is the core of any educational enterprise must be recognized by the teacher and the student.

If teachers are to be the best they can be, worthy of self-respect, the respect of others and given appropriate rewards, teachers must have their own explicit vision of what constitutes the best professional practice and the conditions necessary to achieve this state of grace. This vision must be communicated to and negotiated with others to insure congruence of expectations with those of the institutions and publics which are part of the system. Schools are places where we send our children to insure our collective future and we must trust the professional teacher to guide the development of humane, intelligent, competent adults. Part of that trust must be expressed in the levels of support and prestige we allocate to teachers and schools.

What is it that is most important to achieve in redesigning the profession?

Recapturing and refocusing the professional and the public perceptions of teachers are the first steps in redesigning the profession. Further, redesigning the profession must be accompanied by redesigning the places where it is practiced - the schools. Schools have tremendous cultural ballast for they have looked very much the same in western culture for 2,000 years - a learned adult instructing many neophytes. (Perhaps widespread use of the computer as an individualized instructional tool will restructure schools over the next three decades and consequently change the role of the teacher, but I do not think so, for our schools are structured to suit our post-industrial society probably for the next century.) So, what can and should be done now to enhance the profession?

Major efforts must be made at local, state and national levels to enhance the status of the role through providing higher salaries, more difficult entry procedures, giving additional importance to university training programs which prepare teachers, the same importance given to professional programs which prepare engineers, doctors and lawyers. Teachers must be involved in developing career ladders, peer review systems, experimental programs, documentation procedures for best practices, ongoing professional development and in creating the conditions attendant to becoming a full-fledged profession.

What will need to be changed to achieve that?

Much of what needs to be done to develop a profession of teaching is detailed in Gary Sykes paper, "The Conference." I should like to suggest four modest principles which must be attended to in any efforts to implement short-range projects. I speak from my role as the dean of a large public school of education charged with the responsibility for preservice in inservice training of school personnel, and the first thing I must say is that teacher education candidates in the California State University system are not dumb. In fact, according to a recent system-wide study prepared by David Cohen<1>, teacher education students perform better academically than their counterparts in most other academic majors. With campus-to-campus variations, three-quarters of them pass the CBEST examination, but their survival rate in schools - in the workplace - is low because schools are stressful places to work.

PRINCIPLE NO. 1: TEACHER PREPARATION PROGRAMS AND STAFF DEVELOPMENT PROGRAMS, BOTH INSERVICE AND PRESERVICE MUST BE COLLABORATIVE.

No one institution can do it alone. But, the public schools, which are already overburdened with non-cognitive tasks, do not need to take on another major function - preservice teacher training and credentialing. The institution best equipped to mount, test and define initial preparation programs is the university, with the cooperation of their colleagues in the field. No single group can prepare a good beginning teacher and enhance the skills of an experienced educator. Schools and universities, parents and

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<1>"A Study of the Academic Qualifications of Students Recommended for Basic Teaching Credentials," David Cohen, California State College, Bakersfield (March 1984)

communities, and business and industry are going to have to help professional university-based training programs do the job collaboratively. For me, collaboration means some specific things - three to be exact - such as:

1. Parity among the institutions involved. Does that mean that the school and/or community will select the candidates for a teacher-education program and not the university? No, parity means that each agency has a sphere of expertise which should be contributed in a shared and systematic way to the common good;
2. Collaboration means much interaction and many roles (in-and-out exchanges) at the interface of the organizations; and
3. Collaboration means negotiation as the chief program process.

Does it work? Yes, it does. Ask me or Bob Alioto about the three-year Bayview-Hunters Point Complex Program jointly operated by the San Francisco Unified School District and the School of Education at San Francisco State University, and funded by the San Francisco Foundation.

If you use only the single measure of scholastic achievement test-score increases over the last three years, particularly this last one, the collaboration was a smashing success; and what's important, it is being continued.

Is it revolutionary? No. Can it be replicated? Yes, but collaboration is hard work and must involve all levels and needs resources.

PRINCIPLE NO. 2: WE MUST ASSUME THAT TEACHERS WANT TO TEACH, BE CURRENT AND ON THE CUTTING EDGE OF THINGS,

but that some are under dysfunctional stress, burned out and cannot do their jobs with enthusiasm and joie de vivre.

I have just finished a three-year NIE study of teacher stress and the related working conditions in four large urban-school districts. The study looked at the adult culture in institutions built for children and sought to determine what working conditions made them less effective adults and teachers. The study made the assumption that individuals need security, status and sociability in their culture, society and in their occupational and personal activities and associations. Teachers have not been getting too much of these items in their work-a-day world lately - for the last ten years anyhow. But everyone needs:

1. Security - jobwise, fiscally and physically;
2. Status - self-respect, good press relations, feelings of accomplishment, career mobility; and
3. Sociability - friendship and goodwill in

schools with racial tensions and where sex and age parity divisions among teachers are hard to achieve.

The areas which most interfered with teachers' feelings of security, status and sociability were the top. According to the teachers, the two major stressors which caused burnout, absenteeism, illness, apathy, dropping-out are:

First, Status - What we began to call the Rodney Dangerfield Syndrome: "I don't get no respect!" and "No one asks me what should be done to make schools better; they just tell me." Everytime there was a bad press, we could see stress levels rising and productivity decreasing;

Second, (and here the role of the principal is crucial), the cause identified by teachers called Barriers to Teaching; such as interruptions, interference, paper work, latrine duty, the public-address system - all things which interrupted the time for the learning task.

We must create conditions to permit teachers to achieve status and let them teach. We must train principals and administrators to accomplish these goals in their management and leadership in schools.

PRINCIPLE NO. 3; ASSUME THAT INSTITUTIONS WHICH PREPARE EDUCATORS CAN AND WANT TO DO A GOOD JOB KNOW ABOUT COMPUTER-ASSISTED INSTRUCTION, COMPUTERS, GROUP DYNAMICS, QUALITY CIRCLES, PART DECISION MAKING AND PEDOLOGICAL SKILLS.

However, we need time and resources to meet our responsibility to the commonwealth. The whole new relationship of state agencies, federal government and local municipalities concerning the funding and governance of education, has given rise to another one of those oxymoronic expressions: you know, opposites in the same phrase such as, jumbo/shrimp, postal/service, military/intelligence, and block/grant. As for block/grant, how one can do both - block and grant - at the same time, is a wonder.

We at IHEs have been getting more blocking than granting recently. Nonetheless, we need legislative and system support, for what we know needs to be done in order to be responsible and accountable for preparing instructors to impart basic skills, socialization and instruction in science, computer literacy, reading, writing, ciphering, speaking, etc.

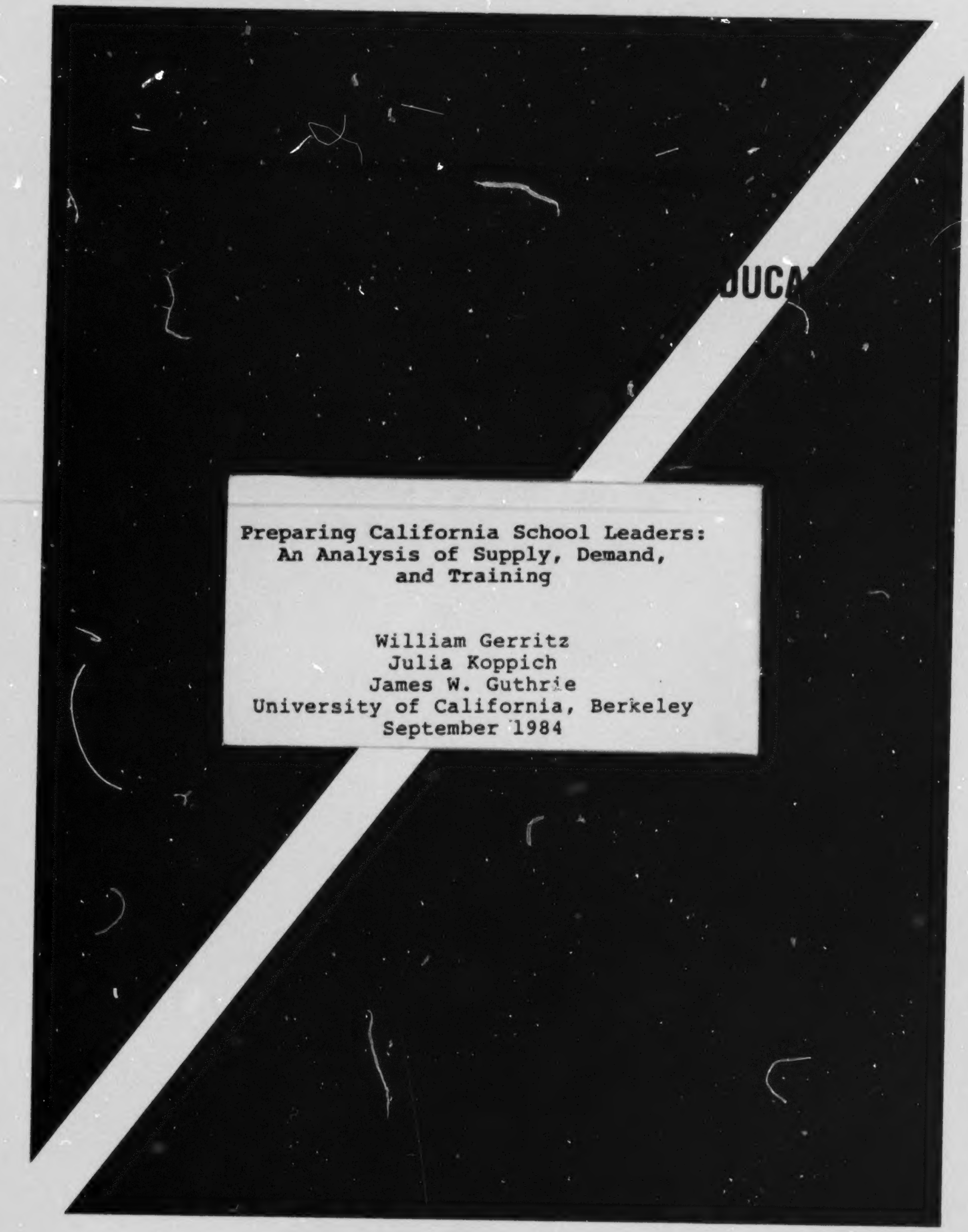
PRINCIPLE NO. 4: PUT MONEY WHERE MOUTH IS!

It's an old Hungarian saying, "You get what you pay for." The cost of training school personnel and support for schools has not kept pace with inflation in California. SB-813 helps close the gap in some respects, but the full force of the implementation costs has yet to be experienced, e.g. implementation costs associated with the requirement that methods faculty have a significant experience in K-12 schools every three years.

We have new mandates to mount inservice and staff-development activities with no additional resources. We know, in addition to money, that finally this endeavor requires trust, time, commitment and expertise coupled with a sensible and systematic collaborative plan to enhance the profession.

Where is the Best Place to Start?

I am reminded of what Margaret Mead said when she was asked how does one begin to educate children for world peace? "The answer is everywhere at once, my friends, everywhere at once."



Preparing California School Leaders: An Analysis of Supply, Demand, and Training

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September 1984

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EXECUTIVE SUMMARY

California currently has no shortage of individuals legally licensed to serve as public school administrators. Indeed, a substantial surplus presently exists of minimally qualified administrative personnel. Moreover, given present turnover estimates, there will not be any shortfall in the immediate future, between now and 1990. Rather than quantity, the problem is quality.

Relative to remaining a classroom teacher, the lifetime earning payoff for becoming an educational administrator in California is high. Furthermore, an individual's costs for obtaining administrator training are low. Consequently, many more individuals may be motivated to seek administrative credentials than, in fact, have any reasonable probability of being employed. Administrators are trained in schools of education. The budgets of these institutions are heavily influenced by enrollments. Thus, there is often little incentive to impose rigorous admission requirements or to cull the inept once admitted. Entry level magnets for adminstrators are strong and the screens utilized by many academic preparation programs are weak. Moreover, the knowledge and skills needed to become an effective educational leader and school manager are generally not those provided by Administrative Service Credential programs.

The result is that the leadership talent generally available to local school districts is often low, and current costs to the state may be higher than necessary. These conclusions lead to the following recommendation:

-Raise admission standards to Administrative
 Service Credential (ASC) programs programs

-Urge ASC programs to be more academically rigorous

-Either require ASC students to pay tuition or phase
 out some public training institutions

-License school administrators individually, not
 their preparation programs

-Fund a California Academy for Leadership
 School Management.

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INTRODUCTION

Education is riding a wave of increased public interest. Policy makers have coupled this renewed zeal for schools with an intense demand for increased educational rigor. In this quest for greater productivity, the importance of school administration is too often neglected. Yet, effective leadership is an essential ingredient for a successful school program.

This paper provides both information and food for thought. We contend that the state is not currently fulfilling its obligation to facilitate the preparation of sufficient numbers of able school administrators. We will examine three areas:

1. Numbers - Are there too many school administrators? Too few? Just what is the supply and demand balance?

2. Who are they? - Who is preparing to go into school administration? Why would someone want to be a school administrator?

3. Preparation - What is the state of the art in preparing people to go into school administration? How close is the match between the skills required to manage schools and the knowledge offered in college and university programs that prepare California school administrators?

Finally, we will provide recommendations for change. We begin with the issue of numbers.

II. Administrator Supply and Demand

A. Overview

The number of individuals holding Administrative Services Credentials (ASC) far outnumbers available administrative positions, and colleges and universities are granting more ASC's every year.

Approximately 16,353 administrators are currently employed in California's public school systems, kindergarten through grade twelve. Community colleges employ an additional 2,170. Non-public schools are estimated to employ 1,642 administrators. Where are these people and what are they doing? This paper concentrates on K-12 public school administrators, the overwhelming group in terms of numbers. Table I below provides a breakdown of the distribution of public school administrators currently employed in California.

Table I

Numbers of School Administrators 1983

Position	Numbers in 1982-1983
Superintendent	672
Assistant and deputy superintendent	3,000
Program/subject area administrator	2,725
Principal	5,587
Assistant principal	4,317
Other	52
Total	16,353

Defining assistant principal, program/subject area administrator, and sixty percent of the principal positions (since principal is not always an entry level job) as entry level positions, it can be deduced from Table I that in 1982-83 there were approximately 10,400 entry level positions for school administrators. Approximately thirty-five hundred new ASC's were granted each year from 1979 through 1982. That is, almost 14,000 administrative credentials were granted over a 4 year period for a job category that includes only 16,000 positions overall and for which, as shall be seen later, there currently is no indication of a high turnover rate. In other words, the current output of school administrator training programs could completely restock school administrators in California every 5 years! Entry level positions alone could be restocked every 3 years. Clearly, supply far exceeds demand.

How many administrators leave the profession each year? Curiously, this information is not easily available. Neither the State Teachers Retirement System (STRS), the California Basic

Education Data System (CBEDS), nor the Association of California School Administrators (ACSA) has these data.

This situation exists despite a strong 1977 recommendation from the Legislative Analyst's Office that, "the Department of Education collect and report to the Legislature statistics regarding turnover rates for public school administrators, together with reasons for turnover." (Legislative Analyst, 1977)

In order to estimate the turnover rate in California's school administrative ranks, baseline information about current age distributions must be examined. The following table describes the age distribution for California school administrators in 1982-1983.

TABLE II

Percentage Distribution of Administrators

by Position and by Age Group

		Age Group				
POSITION	Average age	Under 25	25-34	35-44	45-54	55 and over
Superintendent	49.1	0.0	1.9	21.4	55	21.7
Assistant and deputy superintendent	47.6	0.1	7.3	27.6	42.5	22.5
Program/subject area administrator	44.0	0.1	17.8	34.1	33.9	14.1
Principal		0.0	6.7	29.4	44.7	19.2
Assistant principal		0.2	14.1	39.5	33.5	13.0
ALL ADMINISTRATORS		0.1	9.8	32.1	40.1	17.9

Let us look ahead for the next five years. How many administrative openings can we anticipate will exist five years from now?

Between 1985 and 1990 the number of 5 to 19 year olds in California is expected to increase from 5,334,600 to 5,736,400 or 7 percent. It can be estimated that the total number of entry level administrative positions will increase by the same proportion, although the distribution may shift. Elementary enrollment can be expected to grow while secondary enrollment will dip slightly.

Extrapolating the data in Table II ahead by five years reveals that 17.9 percent of administrators will be age 60 or over. Since the average age of retirement has been 61, we can estimate that approximately 18 percent of current administrators are likely to retire during the next five years. These estimates of school enrollment increase and administrator retirement imply openings for 3,150 administrators during this time. If present credentialing trends continue, California will produce five times this need. This does not take into account individuals hired from outside the state or other (non-retirement) attrition. Only one individual in five obtaining an Administrative Service Credential can anticipate being employed as a school manager.

Perhaps our estimates are too restrictive. Two independent researchers conducted a survey of placement offices in institutions of higher education with graduate programs in education administration. Their methods (See Appendix I) suggest that there will be 6300 adminstration openings between 1985 and 1989. By these more generous calculations, California will produce "only" two-and-a-half to three times the number of school administrators the public schools need.

B. Why the Tilt Toward Supply?

If the supply of administrators is so much greater than the demand, if the chances of securing an administrative position are so slim, why do so many people enter and complete ASC programs? At least part of the answer is that in California, the economic investment in preparing to become a public school administrator offers a high rate of return. Costs to the individual are low, and, if one succeeds in obtaining even an entry level position, the payoff is high. As a consequence, many individuals seek training and join the job queue.

C. Financial Incentives

Most enrollees in California ASC programs are teachers. This is not surprising. California law requires that a person have three years of classroom experience to be eligible for admission to an ASC program. What incentives exist for teachers to choose to enter adminstrators training?

Salary advantages often accrue even if the teacher never secures an administrative position. Teachers advance on their salary schedules in two ways: (1) by gaining more years of classroom experience, and (2) by taking graduate level courses and thus earning additional college units. Academic course credits earned in ASC courses may boost a teacher to a higher paying salary classification. Graduate courses taken in administration, therefore, often result in a higher annual salary even if the teacher never becomes an administrator.

Sometimes financial realities alone persuade teachers to seek administrative jobs. Teachers, on a statewide average, reach the top of their salary schedule in twelve years. Monetarily, there is nowhere else to go except administration. (Of course, despite such economic disincentives, many able people make the conscious choice to remain classroom teachers.)

If a person catches the administrative "brass ring", the ASC training investment pays a handsome financial return. The lifetime earning increment of a school principal is 30% higher than that of a teacher. For those few people who become school superintendents, lifetime professional earning is 60% greater than if they had stayed in the classroom. (For a more complete analysis of how earning increases are calculated, see Appendix 2.)

Clearly, then, for many individuals, it is worth taking the chance and investing in an ASC program.

D. Non-financial Benefits

Administrators enjoy many non-pecuniary benefits that do not accrue to teachers. Unlike financial benefits, which might be realized even if one does not secure an adminstrative position, the non-financial advantages are limited to those people who actually become administrators. The lure of the following seven incentives is often enough to induce people with minimal chances for jobs to seek administrative training. Beside monetary compensation, school administrators enjoy seven other benefits not available to teachers:

- more geographic mobility
- more flexible work schedules
- greater work variety
- higher status
- more diversified career options
- increased influence on policy directions
- increased interactions with adults

(1) More Geographic Mobility

An educational administrator seldom loses money if he or she moves to a different school district. A teacher does. Few districts will give newly hired teachers more than 6 years of salary credit for prior teaching experience. As a consequence, even if jobs are available, teachers with more than 6 years of experience suffer significant loss of income in moving from district to district. Administrators on the other hand have access to a far more fluid job market in which moves from rural to suburban or urban districts can be accomplished with little financial loss.

(2) More Flexible Work Schedules

Teachers typically work within rigid time constraints. Classes begin and end at fixed times. The teacher's daily work life is controlled by the inexorable ringing of bells. Individual teachers have little influence on establishing schedules and once schedules are set, teachers must abide by them. In contrast, school administrators have greater flexibility in establishing and adhering to their work schedules. A principal can return fifteen minutes late from lunch or leave the building to attend a meeting. Administrators often establish work schedules; they are seldom imposed on him or her.

(3) Greater Work Variety

The work of school administrators generally contains greater variety than that of teachers. There is relatively little variation in the day to day work of teachers. The same students show up in the classroom each day and although the content of the daily instruction may vary, the same basic set of strategies are used again and again. For many site and district level administrators, one day seldom resembles another.

(4) Higher Status

Status--the way society views one's role or the job one does--is directly related to job satisfaction. When society looks with favor and respect on an occupation, the people in those jobs tends to feel good about what they do. Although the data are old (1953 and 1964), National Opinion Research Center studies indicate that the social position of principals and superintendents is higher than that of teachers. Other professionals such as lawyers, scientists, and accountants can increase their status without entering managment. Society's view of teachers seems to be on the upswing. For the present, however, teachers must leave the classroom to see increased performance, training, and effort converted to status gains.

(5) More Diversified Career Options

A teacher who chooses to remain in the classroom has limited career options. Indeed, a teacher may look forward to spending his or her fortieth year of teaching right beside a first year teacher, both individuals performing essentially the same tasks. Administrators, however, have many opportunities to move along on a greater variety of career paths. An assistant principal may become a principal and then an administrator at a central school district office, or a program coordinator may become a staff development manager and then assistant superintendent in charge of curriculum. An administrator, then, has many more career possibilities.

(6) Increased Influence on Policy Directions

Teachers are influential within their own classrooms but, as individuals, relatively powerless beyond. Teachers have power as members of their unions, but often find it a constant struggle to exert significant influence over day-to-day policy decisions at their schools. Most schools and school districts operate as bureaucratic systems in which school managers exert greater authority over the development and implementation of policy than do teachers.

(7) Increased Interaction with Adults

It may seem odd to list "increased interaction with adults" as a job benefit--odd, that is, unless you have had the experience of a day, a week, or a year with thirty five-year-olds or 150 adolescents. Then, interaction with adults is, indeed, a job advantage. Teachers perform their professional duties away from other adults. Unlike almost all other professionals, teachers seldom work in consort with other adults. Engineers, social workers, lawyers, physicians, architects, and managers all spend significant portions of their working time either delivering services directly to adults or working cooperatively with other adults. In contrast, teachers spend year after year in isolation within a classroom tending to shifting groups of young people. As Lortie (1975) has documented, this isolation contributes to many of the problems currently confronting the teaching profession such as slow implementation of improved teaching techniques and poor client relations. Although some teachers thrive on the autonomy that is concomittant to the isolation for adult contact, many others simply experience decreased job satisfaction. For many teachers the frequent opportunity to work with adults as a school administrator has considerable appeal.

E. Rate of Return on Investment in ASC Training.

Not only do significant economic and non-economic advantages accrue to people who choose to become administrators and successfully achieve those jobs, but also the costs involved--a teacher's investment in time and money--in training for an administrative credential are relatively minimal.

Teachers enrolled in administrator training programs incur four types of direct costs: tuition/fees, books, supplies, and transportation. A student at a California State University (CSU) campus pays approximately $1200 in fees to complete an Administrative Services Credential program. At the University of California, such fees are slightly more than twice that amount.

Fees at private colleges and universities are much higher. Stanford University, for example, charges more than $10,000 per year in tuition. Little wonder that the overwhelming bulk of ASC candidates are enrolled in CSU preparation programs. These are the institutions where tuition and fee costs to students are clearly the lowest.

The only other direct costs to students are books, supplies, and transportation. The outlay for books and supplies is estimated to be well under $1,000 per student. Until recently transportation costs could be substantial. For a student commuting 100 miles round trip for each class meeting, mileage costs added up quickly. Presently, however, many private colleges and California State Universities offer off-campus ASC programs. Classes meet in the home county of enrolled students in order to relieve students of time consuming and expensive long commutes.

The expense to ASC candidates enrolled in CSU administrative programs is only about $2,000 per year. Since most CSU programs, at least until recently, required but a year to complete, many people viewed this $2,000 as a small price to pay for the opportunity--however slim--to increase one's lifetime earning power by 30%.

What are the opportunity costs? What, besides a relatively small amount of money, do ASC students have to give up to complete an adminstrative preparation program? Students seeking administrative credentials generally have low opportunity costs. They do not have to forego full time employment as classroom teachers to attend managment training classes, as most administrator preparation programs offer courses in the late afternoons, evenings, on Saturdays, and during summer vacations. An enterprising student can complete almost all preparation for the Administrative Service Credential after teaching hours during the regular school year. Under such conditions, there would be no need even to forego whatever summer employment a teacher might have to take to supplement his or her regular salary. Any employment the ASC student might have to forego would probably be the moonlighting variety and the amount of income foregone would likely not be much, especially when set against what the individual hopes will be the eventual return.

Teachers who invest in ASC training and secure an administrative position, may expect a high rate of return on their investment. Appendix II describes rate of return calculations, based upon the type of ASC training institution attended and the highest administrative position ultimately attained.Although these calculations consider the longer work year of principals and superintendents, compared to teachers, the lowest rate of return estimated is 20 percent. A teacher would need to search far and wide to find a comparable rate of return.

III. PREPARATION

A. Overview

California has forty-four colleges and universities that offer programs to prepare people for adminstrative service credentials. These institutions of higher education are not oblivious to the glut of people who already possess unused ASC's. How have the colleges and universities responded to this abundance of potential school administrators? The answer is--badly. The estimated number of new ASC's that will be granted by California colleges and universities [this year] is 3,400. In fact, since the results of a telephone survey conducted in the spring of 1984 indicate increased enrollment in ASC programs, the 3,400 figure may actually be too low.

Looking beyond sheer numbers to the content of ASC programs, what, from the perspective of school reform and improvement, do these programs offer? It may be economically and even personally satisfying to some teachers to complete ASC programs, but do these programs sufficiently provide the skills and knowledge necessary to be an effective school manager? The answer is an unfortunate, and unequivocal, no.

B. Admission Standards for Administrative Services Credential Programs

Prospective school managers in California must obtain their training at one of the 44 post-graduate institutions offering Administrative Services Credential (ASC) programs. Private colleges or universities account for 21 of these programs. The other 23 operate on 18 CSU campuses and 5 University of California campuses. Over 80% of those completing an ASC program graduate from CSU campuses. With very few exceptions, notably the University of California and Stanford University, admission and completion standards for ASC programs are quite low. According to the findings of our telephone survey, ASC programs essentially admit "all comers." Fewer than one applicant in 30 is refused admission to a program. Moreover, over 80% of students admitted eventually receive Administrative Services Credentials.

C. Administrative Services Credential Training

A principal has a different job than a teacher, a job which requires different skills and different training than teaching. A teacher spends most of his or her work day employing various strategies designed to impart knowledge to or develop the learning skills of young people. A teacher's job is complicated, to be sure, but relatively constrained within the four walls of his or her classroom. A principal must deal primarily with adults--faculty members, other staff members, parents, other administrators. He or she must be grounded in knowledge of the business of education to gain the professional respect of the faculty. Also, an effective administrator must be able to select goals and motivate fellow professionals, teachers, to pursue them. In short, an effective principal is the successful manager of an important and sometimes not-so-small business.

Most ASC programs fall far short of the mark in training people to be effective school managers. Unlike full-time programs that train managers for the private sector, virtually all ASC programs hold classes in the evenings, late afternoons and weekends. This scheduling makes sense given that virtually all ASC students already teach or administer full-time. As a consequence, ASC candidates study on "tired time," unable to learn with the intensity of, for example, a full-time MBA student at a UC or CSU campus. Pitner (1984) suggests that part-time ASC students are further limited because they do not experience the intense socialization to distinct norms that a full-time MBA or public administration student will experience. Tyack and Cummings (1977) concluded that such socialization has a critical impact on subsequent managerial behavior and performance. In sum, current ASC studies must be fitted into the already busy lives of students, after work and family responsibilities. Small wonder then, that ASC training seldom requires the rigor, dedication, and high standards of many MBA, law school, and public administration programs.

The nature of administrator preparation in California is strongly influenced by the Commission on Teacher Credentialing. As can be seen in detail in the following table, the Commission's requirements for program approval emphasize subjects such as personnel supervision, school community relations, intergroup or human relations, curriculum supervision, education governance and a supervised internship.

TABLE III
Additions to California Legal Code
(Title 5) Regulation
ASC Credential Requirements

A. Educational Leadership

B. Improvement in the Educational Program

C. Management of Educational Personnel

D. School-Community Relations

E. Legal and Financial Aspects of Public Education

F. Educational Governance and Politics

G. School Management

These courses and practical experiences are consistent with the labor intensive nature and the public setting of present day schooling. In contrast to preparation programs in schools of public administration and business, California school administrator preparation programs give great attention to human relations and public relations courses and skills. Conversely, preparation programs for other administrators, both private and public sector, give greater emphasis to technical matters, resource planning, and analytic skills. A difference in emphasis may be partially justified. Schools rely primarily on people, not technology and in such a people-oriented environment, harmonious human relations are crucial. Similarly, given the heavy concentration of government funding and government regulation for public education, a training emphasis upon public relations is also understandable.

However, even giving the current emphasis its due, a better balance between human and public relations versus technical knowledge could be struck to the advantage of education. Translated practically, this would result in more courses and experiences on learning, theories of teaching, curriculum strategies, program evaluation, cost effectiveness analysis, management information systems, quantitative decision making techniques, computer use, and planning techniques being woven into educational administrator training curriculum.

D. Preparation of Business and School Leaders

How does the training for the men and women who do become California public school administrators compare with the training received by leaders in business or other public agencies where the quality of leadership is a major determinant of organizational effectiveness?

Both middle and upper level managers in California schools have spent many more years in post-graduate training than have business managers. A survey of three Fortune 100 corporations with headquarters in California revealed the following levels of education among executives with comparable responsibility to school principals, assistant superintendents and superintendents (measured in terms of numbers of professionals supervised and budgets managed):

Table IV

Training Levels of Business Managers

LEVEL	PERCENTAGE
BA	65
MBA	34
DOCTORATE	less than 1

Table V

Training Levels of School Managers

MANAGEMENT LEVEL	%BA	%MA	%ABD OR DOCTORATE[1]
principal	8	20	72
ass't superintendent	7	14	79
superintendent	7	10	83

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[1] ABD means All But Dissertation, virtually a full doctoral degree in terms of academic preparation.

Considering 30 semester units as the equivalent of a year's post-graduate study, even lower level school managers have typically spent 2 to 3 more years in full-time academic study than have managers in other fields. As competition for jobs becomes ever stiffer, potential school administrators line up for more post-graduate training. With the consistent surplus of qualified candidates for both lower and upper level management jobs in education over the past 20 years, administrators have needed to train more intensively simply to hold their positions in the job queue. Regardless of the value of the additional training in terms of increasing job performance, administrators need master's degrees or doctorates simply to compete with other job seekers who already have those credentials.

One would logically expect administrative competence to be increased by the additional training received. Administrators should be able to plan, evaluate, supervise, communicate and lead more effectively as the result of the hours spent in post-graduate classes and in completing associated class assignments. Such is not always the case. School administrators themselves voice dissatisfaction with the quality of their training--no matter what the quantity. Data provided in a summary of an assessment survey conducted by the Association of California School Administrators supported the notion that principals in California believe they are not adequately prepared to be school administrators (ASCA, 1977). In particular, the survey showed that the most often identified inadequacies were in the technical area of observation and evaluation of classroom behavior.

There may be no perfect training program to prepare individuals to be successful school managers. Professional literature is replete with varying theories regarding the components of a good administrator training program--including emphasis on physical well-being and positive personality traits; direct supervision of teaching ; guidance; and human relations. One theory stresses the value of successful classroom experiences, despite an apparent general agreement among school managers that teaching experience in and of itself does not adequately prepare a person to be a school principal. The report of the Assembly Education Committee Task Force (1978) stated, "according to many principals, their academic training did not prepare them for their responsibilities as school administrators." A 1976 study (Bridges) reported that principals rated their experience as principal, their teaching experience, and their teaching training as being more useful in their job than the formal administrative training they received. Elementary principals in California, in an extensive series of interviews, attributed success in their jobs to practical experience (ASCA, 1977). In fact, less than two percent of the principals interviewed singled out college or graduate preparation as an important determinant of their success in the role of principal. Historically then, ASC training has been loosely limited to job requirements. What does it cost institutions to provide this "somewhat useful" training?

E. Institutional Costs

The major direct cost variables for public higher educaton institutions involved in school administrator preparation programs are (1) the length of time it takes the college or university to put the ASC candidate through his or her academic paces, and (2) the number of people enrolled in the program. Most preparation programs are geared toward moving people in and out with substantial speed. In terms of numbers, as we have already seen, higher education institutions have not responded to the existing surplus of credentialed school administration by reducing enrollments. This fact loses its ability to startle once one recognizes that funding for most ASC programs is enrollment driven. It is to schools' advantage to maximize the number of program participants, regardless of their employability.

The lowest cost ASC programs were those requiring but a year of "full time" study and in which there are substantial numbers of students enrolled such that fixed costs are spread over a larger "production run." Programs which match this profile tended to be in the eighteen California State University campuses which offer programs leading to the Administrative Services Credential. Many students were admitted and requirements could be met in just a year of full time study. The institutional delivery costs, both direct and indirect, of such programs we estimated to be $5,000 to $10,000 per completed Administrative Services Credential.

At the opposite end of the continuum are programs such as at Stanford and the University of California where course requirements typically necessitated two years to complete and entry was restricted to but a small number of enrollees. These programs we projected to cost the institution approximately $41,000 to $50,000 per completed administrative credential.

Table VI

ESTIMATED TWO STAGE ASC PROGRAM COSTS

Type of Institution	Institutional Costs	Student Borne Costs	Total
CSU Campus	$ 9,000	$ 2,000	$ 11,000
UC Campus	$ 41,000	$ 2,000	$ 43,000
Private College or University	$ 4,000	$ 12,000	$ 16,000

The state of administrator training---and its results---are captured by John Goodlad in his 1983 study of California's public schools.

> "In our study of educational change and school improvement, we found most of the school principals of the participating schools lacked major skills and abilities required for effecting educational improvement. They did not know how to select problems likely to provide leverage for schoolwide improvement, how to build a long term agenda, how to assure smooth continuity of business from faculty meeting to faculty meeting, how to secure and recognize a working consensus, and on and on. Most were insecure in their relations with faculty and rarely or never visited classrooms. Some were hopelessly mired in paper work, exaggerating the magnitude of the tasks involved in part to avoid areas of work where they felt less secure"(Goodlad, 1983).

IV. Conclusion & Recommendation for Change

This paper offers three major conclusions:

1. there is an oversupply of trained administrators
2. this is an expensive waste as far as the state is concerned
3. ASC training is inappropriate for the actual job requirements of school administrators.

This paper does not establish:

4. ASC programs are of poor quality (even if inappropriate, they may do what they do quite well)
5. school administrators are of poor quality (even if they pursue non-rigorous, inappropriate training).

It is important that the recommendation address items 1, 2, and 3 and not 4 and 5.

The major problem facing educational administation in California is one of quality, not quantity. There is no shortage of licensed individuals minimally qualified for entry level employment. Training which is relatively low in cost to the individual, low admission and graduation standards in preparation programs and high economic returns on individual training investments are attracting larger than needed numbers of classroom teachers into administrator training. The major challenges are to limit the number of ASC candidates, or at least limit the number prepared at the public's expense, attract more able people into school administration and provide them with better preparation, and assist those already holding administrative positions in improving their job skills. The following are offered as recommendations to begin to meet these challenges:

(1) To begin to bring supply and demand into better balance, public school administrator programs should require students to pay tuition.[2] An individual armed with an Administrative Service Credential may realize a high return on his or her investment. There is simply no need for the state to subsidize ASC candidates. Certainly state financial resources can be put to more critical education-related needs. Under such conditions, market forces might come into greater play. Institutions of higher education having good reputations for placing graduate administrative credential recipients would become more attractive. Presumably, their reputation would be tied to the quality of their graduates. Such success would be self reinforcing.

(2) Alternatively, the state should phase out some public training institutions. Of the 44 California colleges and

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[2] In principle, perhaps all public higher education graduate professional training should charge tuition. However, in that this paper focuses exclusively upon educational administrators, we restrict our recommendations here.

universities that offer ASC programs, 23 of them operate under the auspices of the state. California's limited financial resources are spread too thinly to justify this number of state-run school administrator training programs. The state may hold no sway over the 21 private colleges that provide ASC training, but the number of participants in these progrmas is naturally limited by the tuition cost private institutions of higher education already impose. Those numbers would be further reduced by the implementation of some of the succeeding recommendations.

(3) Program admission standards must be raised. In addition to three years of teaching, an applicant to an ASC program should be required to show evidence of completion of graduate level college or university work; supply recommendations from people with whom he or she has beeen professionally associated, such as teachers, school administrators, or school board members; achieve an acceptable score on the Graduate Record Exam or similar test; and qualify for admission to the college or university's graduate division.

(4) ASC programs themselves should be academically more rigorous. The state should continue to implement its newly designed two tiered system of administrator training. The first level emphasizes knowledge and skills required for success in entry level edministrative positions (assistant principal, principal, project coordinator), including instructional leadership, program improvement, personnel management, school-community relations, and school management. After several years of administrative experience and proven competence, individuals could enter the second phase of training. This second phase emphasizes broader areas of skill development, such as school finance, school governance and policy formation at the local, state and national levels; organizational theory; program evaluation; staff development; and school law.

(5) School administrators, not their programs, should be licensed. Completion of an ASC program should not guarantee an individual that he or she will automatically receive the credential. Potential school administrators should be required to pass a post training examination, much as a prospective lawyer must pass the bar exam or a physician who moves from general practice to a medical specialty must pass a test.

(6) Finally, the state should give serious consideration to funding a California Academy for Successful School Management, The Academy, which would have a branch in Northern and Southern California, would provide a multi year

training program of full-time study for selected school administrators. Subsidized by the state, the training academy would have stringent admission standards and require participants to have completed a series of successful and varied teaching assignments. This California Academy for Educational Leaders would offer stipends sufficient to support students in full time study. In return for the state's investment, those who complete the academy's training program would be required to give four years of service in schools selected by the state on the basis of their low achievement. Academy participants would be limited to 100, thus creating a select cadre of highly specialized, carefully trained school managers to serve as models and teachers for their peers throughout the state.

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The situation for school management is not hopeless. Recognizing the problems is, of course, the first step toward providing solutions. The state has an immediate responsibility to reexamine the school management training programs its institutions provide, review its deployment of resources for these programs, and analyze the effectiveness of current school administrators. The state must then set itself on a carefully planned course of action designed to remediate the problems and effectuate successful and longlasting solutions.

Without substantial commitment from state government, school management and training will continue to be mired in ineffective programs which admit marginally qualified students. With the state's help, school administration programs can become tools for education reform and school managers can be powerful instruments to help bring about change.

BIBLIOGRAPHY

Allen, S.G. "The Supervisory Work of Principals," School Review May, 1983.

Association of California Administrators. Special Report: Professional Development Programs. 1976-1977 Assessment Survey Summary, Burlingame, CA 1977.

Bridges, Edwin. "Administrative Preparation: A Critical Appraisal," Thrust for Educational Leadership 5 (March 1976)

California Basic Educational Data System. Characteristics of Professional Staff in California Public Schools, Sacramento: California State Department of Education, 1983.

California Basic Educational Data System. Enrollment Data: California Elementary and Secondary Public Schools, Sacramento: California State Department of Education, 1983.

California Basic Educational Data System. Salaries of Professional Staff Members in California Public Schools, 1982-1983.

California State Teachers' Retirement System. Service Retirants' Characteristics, Sacramento: California State Department of Education, 1983.

Edmonds, R. and J.R. Fredicksen. Search for Effective Schools: The Identification and Analysis of City Schools that are Instructionally Effective for Poor Children. Cambridge: Harvard University, 1978.

Goodlad, John. A Place Called School, New York: McGraw-Hill, 1984.

Gray, William. "The Work of Principals," The Elementary School Journal, September, 1918.

Griffiths, Daniel. The Job Performance of School Administrators, New York: Columbia University, 1962.

Grippa, Paul. Testimony to the Assembly Permanent Subcommittee on Educational Reform, Interim Hearings on School Principals (San Diego, November 15, 1976).

Hall, Rutherford, Hond, and Huling "Synthesis of Research on the Principal as Instructional Leader"

Huff, Sheila; Lake, Dale; and Schaalman, Mary Lou; Principal Defferences: Excellence in School Leadership and Management Boston: McBer and Company, 1982.

Kuh, George: McCarthy, Martha; and Zent, Amy. "Supply and Demand of School Administrators," Educational Research Quartly 8 (1983): 2.

Legislative Analyst. The School Principal: A Report Pursuant to Resolution Chapter 102 of 1977. (ACR 350, October, 1977. State of California, 925 L Street, Suite 650, Sacramento, CA 95814, p. 18.

Lepick, John. "Personal and Professional Chararcteristics of Elementary School Principals." Ed.D. dissertation, University of Southern California, 1961.

Lortie, Dan. Schoolteacher: A Sociological Study. (Chicago: University of Chicago Press, 1975).

Meany, Dave, "Element of Effective Schools", San Diego County Office of Education, 1983.

Paulo, William. "In-Service Education Needs of Elementary School Principal." Ed.D. dissertation, University of Southern California, 1965.

Pitner, Nancy. Graduate Preparation for the Principal In California. (Sacramento: California State Department of Education, 1984.)

Tyack, D. B., and Cummings R. "Leadership in American Public Schools Before 1954: Historical Configurations and Conjectures." In Educational Leadership: The Developing Decades, edited by L. L. Cunningham, W. G. Hack, and R. O. Nystrand. (Berkeley, McCutchan, 1977).

A telephone survey of the 44 California post-secondary institutions offering Administrative Service Credentials was conducted during April/May of 1984. Information was gathered about enrollments in ASC programs, numbers of ASC credentials granted per year, admission requirements, rejection rates, and numbers of ASC graduates finding administrative positions.

APPENDIX I

Estimating the Supply and Demand for California School Administration.

California has 44 colleges that offer administrative services credentials. These programs will graduate 17,700 new potential administrators between 1984 and 1989 based on average 1979-1982 production. In fact, since several programs surveyed indicate an increase in enrollment in ASC programs, the 17,700 figure may be too low. How many of these ASC holders can expect to now obtain an administrative position in California? Two independent estimation procedures can be used in this regard. The first relies on an extrapolation from the Table III and estimates of school population increases. The second applies a procedure used to estimate nationwide administrator demand. In consort the procedures bracket a range of administrator supply and demand in California thru 1989.

SUPPLY AND DEMAND ESTIMATES

Between 1985 and 1990 the number of 5 to 19 year olds in California is expected to increase from 5,334,600 to 5,736,400 or 7% percent. It can be estimated that the total number of entry level administrative positions will increase by the same proportion, although the distribution will shift between elementary and secondary. Elementary enrollment can be expected to grow while secondary will dip slightly. Extrapolating the data in Table II ahead by 5 years reveals that 17.9 percent of administrators will be age 60 or over. Since the average age of retirement has been 61, a rough figure of 18 percent can be identified for the number of administrators likely to retire over the next 5 years. An additional 7 percent will be hired because of projected enrollment increases. In combination there estimates produce a yearly turnover rate of 5% or approximately 800 new hires per year.

Kuh and Zent (1983) conducted a six state survey of placement offices in institutions of higher education with graduate programs in educational administration. They estimated the number of new administrative hires during the years 1975 through 1980. They reported 913 new hires with 2530 incumbents in 1980 or a ratio of 0.36 of new hires to incumbents. Their estimates may be high since response rates varied from 29% to 88% and since offices with low rates of placement would be less likely to report. Applying this proportion to the estimated 17,497 total school administrative positions in California in 1989 yields an estimate of 6,300 openings between 1985 and 1989, which translates into a yearly average turnover rate of 9 percent.

In summary, we estimate that 5 to 9 percent of the total number of administrative positions will turn over annually. The administrative workforce can be projected, on average, to replace itself every twenty years. This projection is consistent with data suggesting that the modal administrator acquires his initial position about age 40 and retires at close to age 60.

APPENDIX II

Estimating Rates of Return on Investment in Administrative Service, Credential Training.

In California, the investment to prepare to become a public school administrator offers a high rate of return. Costs are low, and, if one succeeds in obtaining even an entry level position, the payoff is reasonably high. As a consequence, many individuals seek training and join the job queue.

SALARY INCENTIVES FOR CLASSROOM TEACHERS TO BECOME ADMINISTRATORS

Why should teachers choose to become administrators? What are the long-term financial and non-financial benefits payoffs for leaving the classroom to enter administration? California requires that one have been a classroom teacher for a minimum of three years before being eligible for an Administrative Services Credential. It is not surprising, therefore, that the overwhelming number of individuals enrolled in administrator preparation programs are currently employed as classroom teachers. If they should remain as teachers, an improbable circumstance for the most able among them, they can look forward to their earning power peaking after approximately twelve years. By this time they will have reached the top of the teacher salary schedule in most districts. At this juncture the only things to look forward to are cost of living adjustments, should they be forthcoming from the legislature, or leaving the classroom for an administrative position. Little wonder, for this reason alone, that such large numbers seek to become qualified as administrators.

Even if one falls short and is unable ever to gain an entry level public school administrative position, it does not mean that one's management preparation is wasted. Aside from, whatever, if any, psychic rewards come from going to school, academic course credits accruing from ennrollment in an Administrative Services Credential program will generally count toward higher pay as a teacher. Teacher salary schedules have a horizontal component based upon the number of academic units taken beyond the bachelor's degree. Most local districts impose few restrictions regarding the nature of these units. Graduate courses taken in administration often result in higher annual salary even if the individual never becomes an administrator. Given the low cost involved in taking administrator course, at least at public institutions, it is no wonder that teachers enroll. Through one set of lenses, they have little to lose.

If an individual is fortunate and obtains an administrative position, then the training investment earns a particularly handsome return. Comparing the differential between a classroom teacher and the position of school principal, the increment in lifetime earning is thirty percent. If the individual overcomes the substantial odds and becomes a superintendent then the increment in lifetime earnings is in excess of sixty percent. The next section describes these incentives in more detail.

LIFETIME EARNING PROJECTIONS

This analysis compares the estimated lifetime earnings of teachers who remain in the classroom and those who become middle managers (principals and assistant principals) and then those who enter upper level management (assistant superintendents and superintendents). Second, the non-financial advantages of administration over teaching are estimated. Third, the salaries of school administrators are compared to those of managers in the public and private sectors with similar responsibilities.

Certain assumptions must be used in estimating lifetime earnings. According to State Teachers Retirement System data, for the past decade the following patterns have been the norm in California. The average age for beginning teachers is 24, while the average age for retiring teachers is 61 (STRS, 1983). On a typical salary schedule controlled by longevity and college units, by age 34 a teacher who began in his or her early twenties has reached a salary ceiling. For the next 30 years, his or her salary will increase only from cost-of-living adjustments and completion of additional coursework. Information supplied by the California Basic Educational Data System (CBEDS, 1983) indicates that very few teachers become administrators before their early thirties.

The earnings from age 34 to 61 were estimated for five career paths:

- -teaching to age 61
- -assistant principal to age 61
- -principal to age 61
- -principal until age 45 and then assistant superintendent to age 61
- -principal until age 45, assistant superintendent to age 54, superintendent to age 61

The listed salaries do not include medical, retirement or other fringe benefits and assume constant 1983 dollars. To the extent these benefits are excluded, the total compensation to administrators may be significantly underestimated. In order to improve their negotiating positions with teachers' unions, many districts provide sizable fringe benefits to administrators without listing the benefits on the official salary schedule.

Table VII

Projection of Administrator Salaries

...AGE...	Teacher	Ass't Principal	Principal	Prin. to Ass't Supt.	Principal to Supt.
34	19768	33122	37033	37033	37033
35	24324	33122	37033	37033	37033
36	24324	33122	37033	37033	37033
37	24324	33122	37033	37033	37033
38	24324	33122	37033	37033	37033
39	24324	33122	37033	37033	37033
40	24324	33122	37033	37033	37033
41	24324	33122	37033	37033	37033
42	24324	33122	37033	37033	37033
43	24324	33122	37033	37033	37033
44	24324	33122	37033	37033	37033
45	25950	33122	37033	38790	38790
46	25950	33122	37033	38790	38790
47	25950	33122	37033	38790	38790
48	25950	33122	37033	38790	38790
49	25950	33122	37033	38790	38790
50	25950	33122	37033	38790	38790
51	25950	33122	37033	38790	46410
52	25950	33122	37033	38790	46410
53	25950	33122	37033	38790	46410
54	25950	33122	37033	38790	46410
55	26730	33122	37033	38790	46410
56	26730	33122	37033	38790	46410
57	26730	33122	37033	38790	46410
58	26730	33122	37033	38790	46410
59	26730	33122	37033	38790	46410
60	26730	33122	37033	38790	46410
61	26730	33122	37033	38790	46410
	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL
	709618	927416	1036924	1066793	1150613
		C-B	D-B	E-B	F-B
		217798	327306	357175	440995
			D-C	E-C	F-C
			109508	139377	223197
				E-D	F-D
				29869	113689
					F-E
					83820

Table VIII

Salary Gains from Age 34 to age 61 by Administrative Position

	TEACHER	ASSISTANT PRINCIPAL	PRINCIPAL	ASSISTANT SUPERIN.	SUPERIN.
TEACHER	0	218,000	327,000	357,000	440,995
ASSISTANT PRINCIPAL		0	109,508	139,377	223,197
PRINCIPAL			0	30,000	113,689
ASSISTANT SUPERINTENDENT				0	84,000

Several important conclusions can be reached using the information in Table VIII. Teachers who become administrators increase their lifetime earnings potential enormously, from as little as $218,000 by coming and remaining an assistant principal, to as much as $441,000 by becoming a superintendent. A teacher who becomes an assistant principal at age 34 and remains in that position until age 61, increases his/her earnings by 31%. By becoming principals, assistant superintendents and superintendents, teachers increase their earnings by 62%.

If anything, the lifetime earnings for superintendent are underestimated. The average age of superintendents in California is 48. In this income stream analysis it was assumed that one did not become a superintendent until age 55. Clearly many become superintendents in their late thirties and early 40's with consequent increases in lifetime earnings potential.

Public agencies publish salaries. Business firms as a rule do not publish manager's salaries. Since salary statistics are not readily available in the literature, a survey technique was used. The personnel departments at several major California firms were surveyed by telephone to obtain estimates on financial compensation for the following levels of managerial responsibilities:

--manage 20 professional employees and a budget of 1 million dollars
--manage 80 employees and a budget of 4 million dollars
--manage 200 employees and a budget of 10 million dollars
--manage 800 employees and a budget of 45 million dollars.

For the positions of assistant principal in all schools and principals in elementary schools, salaries are comparable to those received in industry. Except for small rural districts the salaries for high school principals, assistant superintendents and superintendents are lower than those in industry.

COSTS

The costs and rates of return involved in training school administrators in California will be analyzed from four perspectives.

--student direct costs

--student opportunity costs

--rates of return for students

--institutional costs colleges that operate A.S.C. programs

These analyses will demonstrate that a teacher's investment of time and money in training for an Administrative Services Credential will be relatively inexpensive but yield a high rate of return.

Student Direct Costs

Teachers enrolled in administrator training programs incur four types of direct costs: tuition/fees, books, supplies, and transportation. The following analysis assumes a student in enrolled in a two stage ASC program. These new programs, prescribed by AB 777, significantly increase student direct costs over those incurred during the previous one year programs.

A student at a CSU pays approximately $1300 in user fees to complete an Administrative Services Credential program. At the University of California, such fees are slightly more than twice as much, $2800. At private colleges and universities, fees can be many times more. Stanford charges almost $10,000 per year in tuition. Little wonder that the overwhelming bulk of ASC condidates are enrolled in CSU preparation programs. These are the institutions where tuition and fee costs to students are clearly the lowest.

The only other direct costs to students involve books, supplies and transportation. The outlay for books and supplies is estimated to be well under $1,000 per student. Until recently transportation costs could be substantial. For a student commuting 100 miles round trip for each class meeting, mileage costs added up quickly. But now many private colleges and California State Universities offer off-campus ASC programs. Classes meet in the home county of enrolled students in order to relieve the students of time consuming and expensive long commutes.

Opportunity Costs

Students seeking administrative credentials generally have low opportunity costs. They do not have to forego full time employment as classroom teachers to attend administration training classes. Most administrator preparation programs offer courses in the late afternoon, evening, on Saturdays, and during summer vacation periods. For an enterprising student, almost all preparation for the Administrative Service Credential could be obtained after teaching hours during the regular school year. Under such conditions, there would be no need even to forego whatever summer employment he or she typically expected to have. If a student in fact had to forego employment, it would probably be of an hourly pay variety, a second job or moonlighting situation, and the amount foregone would not likely be much. Assuming even that such sacrifice is as high as $1,000, this is insignificant compared with the subsequent return on the investment.

Rates of Return

Estimating rates of return on investments in capital of any kind, land, machinery, or human, inevitable involve predictions about the future and of course predicting the future always introduces considerable uncertainty about conclusions. In order to increase the reliability of these estimates on the private rates of return for investment in A.S.C. training, three independent estimation procedures will be used. The first technique utilizes simple present value projections; the second, an income stream analysis, and the third, a return on average daily wage. As will be evident, even the lowest of these estimates on rates of return can only be described as princely.

The following table presents four cross tablular calculations of rate of return on personal investment. The two columns contain the lifetime income stream increments for prinicpals and superintendents. Cells contain added income for each of these positions aggregated for the administrative working life of the individual relative to remaining a teacher. The rows portray rate of return assuming varying levels of individual investment, low cost CSU, medium cost UC, and high cost nonpublic university. The total costs to students are also listed. In each case an opportunity cost of $1,000 has been used. Since virtually all ASC students incur opportunity costs significantly below this level, the extimates for private rates of return will be low.

TABLE IX

Estimated ASC Student Borne Costs by Training Institution

Type of Institution	Total Cost to Student (opportunity costs + direct costs)
CSU Campus	$3200
UC Campus	$4800
Private College or University	$14,000

As described in Table X, it has been estimated that a teacher who follows a career path terminating in principalship will earn 327,000 more dollars (constant 1983) than if he/she had remained in the classroom. Similarly a career path terminating with a superintendency will return $440,995.

The standard formula for computing present values (Benson, 1978) is used: $PV = F(t)/(1+i)^t$ Where PV = present value of investment, i = annual rate of return, t = the number of years, and F(t) equals the value of the investment in the t^{th} year. In this analysis PV represents total student costs, F(t) represents the lifetime earnings increment from Table X, and t = 27 years, ages 34 to 61.

Table X

Estimated Rates of Return by Administrative Position and by Training Institution.

Type of Institution	Student Cost	Principal's Increment	Superintendent's Increment	Rate of Return (Prin.)	(Supt.)
CSU	3,200	327,000	441,000	19	20
UC	4,800	327,000	441,000	17	18
PRIVATE	14,000	327,000	441,000	12	14

For the second procedure we compute the average yearly increase in income for administrators over teacher, again using i = 27 and the data in Table X.

TABLE XI

Estimated Yearly Increments by Administrative Position

Position	Yearly Increment
Assistant principal	$ 8,100
Principal	$12,100
Assistant Superintendent	$13,200
Superintendent	$16,300

Using the same estimates for student direct costs as in Table IX and dividing the student costs into the yearly increment yields the following rate of return estimates.

TABLE XII

Estimated Rates of Return by Administrative Position and by Training Institution

Type of Institution	Student Cost	Rate of Return Prin.	Rate of Return Supt.
CSU	$3200	378%	509%
UC	$4800	252%	339%
PRIVATE	$14000	86%	116%

These incredibly high rates of return are probably overestimates. In order to improve the reliability of the estimates, the following information is added. The average work year for a teacher in California is 180 days, for principal 215 days, and for a superintendent 225 days. Dividing average salaries from Table V by days worked per year yields the following estimates of daily pay.

TABLE XIII

Increases in Daily Rates of Pay by Administrative Position and by Training Institution

Position	Daily Rate of Pay
Teacher	$148.50
Principal	$174.70
Superintendent	$206.30

Inst.	Principal's Daily Investment	Superintendent's Daily Investment
CSU	14.88	14.22
UC	22.32	21.33
Private	65.11	62.22

Inst.	Increase Principal	Increase Supt.	Return Prin	Return Supt.
CSU	$26.20	$57.80	176%	406%
UC	$26.20	$57.80	117%	270%
PRIVATE	$26.20	$57.80	40%	92%

The rates of return on individuals' investments in becoming a school administrator ranges from 40 percent in the instance of an individual attending a high cost program and becomes a principal all the way to 406 percent for the person who attends a low cost program and becomes a superintendent. Even though these estimates are biased on the low side because it is assumed that the administrator receives the increment in one sum at age 61, there are few financial opportunities comparable even to the lower rate of return for individual "A" attending the high cost program. One would practically have to discover a gold mine or an oil well to compete with the internal rate of return from the low cost administrator training program.

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REFORM IN TEACHER EDUCATION:
THE MISSING LINK

Testimony
given before the

NATIONAL COMMISSION ON EXCELLENCE
IN TEACHER EDUCATION

San Francisco
October 23, 1984
by
Fannie Wiley Preston

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The essence of teacher education is effective teaching.

The ultimate test of the quality of teacher education program is whether or not the program graduates can walk into a school and successfully meet the challenges inherent in the complexities and realities of the classroomm setting. There are effective teachers in our schools. These are teachers whose instructional practices enhance student attainement of basic skills, foster positive attitude toward learning, and encourage students to be responsible for their own behavior. I have ample reasons to believe that some part of their effectiveness can be attributed directly or indirectly to their training experiences.

Yet, we as teacher educators read article after article which state that teacher education courses are irrelevant, teacher education courses do not teach teachers how to teach, teachers learn how to teach by teaching, and teachers themselves question the efficacy of teacher education programs. This apparent contradiction suggests that reality and selected perception are inextricably intertwined.

In addition, school districts across the country are inplementing instructional skills staff development programs. In Tennessee and Florida teacher evaluation is being tied to a state instructional skills model. Master teacher programs are flourishing and there is a demand for more and earlier field experiences (although the Institute for Research on Teaching is cautioning against the pitfalls in excessive field experiences.) Foundations and private

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agencies are funding training efforts and New Jersey is making an effort to reduce or eliminate professional requirements entirely. All of these efforts are going on in the name of improved teacher education. This national state an local attention is gratifying and serves a useful purpose, however, in this complex socio-political climate surrounding teacher education, with the interaction and interface of such dynamic factors as finance, recruitment, retention, standards, program structure and collegiality, it is easy to draw fallacious conclusions and to be diverted from recognizing the critical and the essential for long term improvement of teacher education. The basic ingredient that forms the foundation upon which all other reforms can build can easilty be overlooked.

The remainder of this paper addresses a fundamental change that is needed in teacher education and proposes a framework for making that change a reality: "What" to change and "how" to change it.

A Complete Teacher Education Program

A comprehensive, complete professional education program contains four components:

1. CONTENT METHODOLOGY

   How to teach Reading, Math, Science, English, and other content areas.

2. APPLIED BACKGHROUND KNOWLEDGE AND UNDERSTANDING

   The ability to apply knowledge, understanding, and principles derived from other disciplines to the teaching-learning process.

3. PLANNING METHODOLOGY

Technical skill, sequencing learning tasks, classroom management, adapting instruction to student needs.

4. TEACHING METHODOLOGY

Generic teaching, interaction, communication and negotiation skills: ". . . how to give an explanation, how to arouse interest and motivation, how to ask various kinds of questions, how to react to students' responses, how to give helpful correction and feedback, how to avoid unfair biases in interacting with students -- in short, how to teach." (Gage, 1984.

All of these components are important.

I suggest to you that what we as teacher educators have done and done well is to deal with effectively with the first three components. What we have not done well is to teach our students how to deliver insturction. How to tech under a variety of conditions in a variety of multi-cultural settings. Our approach to teaching instructional skills has been quixotic, idiosyncratic and based upon "arm chair" research. The value of the content in the area of teaching methodology depends upon who is teaching the course. The cause of this state of affairs can be traced directly to the lack of a commonly shared knowledge base related to effective teaching skills.

The Use of the Knowledge Base from Research on Teaching

The situation has changed dramatically. We now have a scientific basis for the art of teaching. We have knowledge bout the relationship between teacher behavior and specific student outcomes. We have sufficient knowledge about effective teaching variables and their relationship to student learning that we can begin to systematically communicate this information to our students and eonstrate its use as a basis for decision making. Primary cources, syntheses of this research and critical analyses are readily available.

A logicall question is, why haven't schools of education taken the leadership in integrating this knowledge base into their teacher education curriculum? Such an integration would respond to teacher's need to handle the classroom on a day to day basis. It would address some of the sharpest criticisms of our teacher education programs.

Aside from the fact that this consensus about instructional skills is a 1980's phenomenon, teacher educators have not used this knowledge base on a systematic basis because it is not accessible to them ina form of sufficient depth and breadth that permits its immediate analysis, adaption and translation into teaching methodology. This knowledge base needs to be translated from the perspective of a teacher educator. There is a difference between knowing content and teaching content.

To their credit, college professors are skeptical of "quick fixes" and "cookie cutter" approaches to instructional improvement. New knowledge is subject to rigrous scrutiny, review, interpretation and analysis.

In order for teacher educators to use this new information, it must be organized and categorized into a hlpful map. We need to know the "real stuff" it is made out of if it is going to hlp our students decide what to do on Monday morning. It is one thing to know that ther is a new world out there. It is another thing to know the twists, curves, turns, stumbling blocks along the path. In addition, new knowledge needs to be connected to the academic disciplines so that students can know why these particular techniques are working and so that they can generate alternative solutions when they don't work. Once we have this cognitive scaffolding, these semantic maps, we can develop training materials and training models that interface what we know with the complex, multivariate, interactive contexts in which teachers find themselves.

This approach gives recognition to the fact that excellence in teaching has not been soleen solved once and for all by what we now know. We have only made a beginning. Teaching excellence is an ideal -- not a goal. We have to continue and carve out the teaching methodology that makes us unique -- what makes a good chemist a food chemistry teacher. The work has only begun.

In summary, the essential change that is needed in teacher education is an internal one. External changes are important, but they must be basic and fundamental changes. The primary internal change that is needed at this time of research on teaching and teacher education inot the professional education curriculum using a broad and comprehensive approach. State and federal support is needed to establish a vehical for pulling together the disparate, multidimensional, contradictory knowledge in teacher education and teaching effectiveness in a way that is useful for teacher educators and field personnel. This recommendation is not unique. We know that the question is "how".

A Plan of Action

I recommend the establishment of a Research and Faculty Development Center for the Study of Teacher Education which will be directly linked to a training institution. The primary function of the the Center is to meld research and practice in teacher education and make this information accessible to the teacher education and field personnel. The chief responsibilities of this center would be:

1. To analyze, categorize, conceptualize the field of research on teaching and teacher education in a way that is useful to teacher educators.
2. Link this research to major disciplines through clinical analysis.
3. To develop training materials and powerful

training models (use of technology) to be used in symposia with faculty in teacher education as a vehical for opening up a dialog among teacher educators as to the efficacy and value of integrating this information into the teacher education curriculum. Use a trainer of trainers model. The symposia will permit the scholarly inquiry and questioning that will keep research dimensions in proper perspective.

4. Conduct implementation and replication studies related to testing a variety of models based on the research. A chemist stays in his laboratory but teachers exist in complex multi-dimensional systems. How do models hold in different contexts with different ethnic groups? Why do they send the shuttle up 26 times? Because everytime they send it up they learn something new about the process.

5. Involve other academic disciplines and field personnel in the work of the center. We need to democratize the training of teachers.

Benefits

This model would facilitate making teacher education the all University effort that it is, and takes into consideration the fact that professional change is a long term process.

When the research on teaching and teacher education is made accessible to teacher educators, teacher education can become a high demand profession in terms of teacher competency and the accountability of institutions of higher education will be a natural consequence. The system has aresponsibility for providing access. We have a responsibility for taking advantage of it. As we find more effective ways of teaching our students how to teach, it is axiomatic that we will become better teachers.

CONCLUSION

In order to improve teacher education we need to establish a capacity to study and use research on teaching and teacher education that is directly linked to practice. The goal of this endeavor is to make the internal changes in our teacher education curriculum that will significantly affect the quality of instruction received by students in training. We are at the crossroads as a society -- we have the information and the skills to use the criticism of teaher education as an opportunity for constructive change. The question is whether or not we have the courage to do so.

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TESTIMONY to the NATIONAL COMMISSION ON EXCELLENCE IN TEACHER EDUCATION

Presented by

Sue Strand, President Nevada State Education Association

Chairperson McGrath and Commission Members, good afternoon. My name is Sue Strand, and I am president of the Nevada State Education Association. I requested time to speak to you today concerning Teacher Education in Nevada. First, I want to inform you about the structures in place, then there is one specific topic upon which I will elaborate. I decided to use this approach because I want you to know about the impact teachers in Nevada have on Teacher Education.

In 1979, the Commission on Professional Standards in Education was created in law by the Nevada Legislature. It authorized the governor to appoint the persons to serve on the Commission. It is an eleven member body with representative groups specifically stated in the law. The Nevada State Education Association has three (3) representatives, the Nevada Association of School Administrators having 2 representatives, the 2 deans of education on each of our University campuses, a representative of the Nevada Personnel Guidance Association, a representative of private schools, a representative of the general public and a representative of the Nevada School Boards Association. The commission, as an advisory body to the State Board of Education has the following duties:

1. Recommend standards for the teaching profession.
2. Recommend standards for the certification of teachers and such other requirements as the commission deems necessary.
3. Propose for adoption appropriate regulations regarding the procedures for certification.
4. Conduct a continuing evaluation of he program of certification and the effects of the program upon the schools of the state.
5. Recommend standards and procedures to govern credit for courses which are taken by a person while he is employed as a teacher.
6. Develop a concise policy regarding the continuing education and recertification of teachers.

The funding for commission meetings is categorical, appropriated from the state general fund to the state Department of Education. This year the Commission will recommend revisions in initial certification requirements in secondary education, and will begin work on elementary certification.

In 1981, the then dean of the College of Education, Dr. Richard Kunkle, formed the University Council of Teacher Education at the University of Nevada, Las Vegas. This Council is composed of a member from each of the colleges at UNLV - which feeds into the education college, a representative from the Clark County Classroom Teachers Association, a representative from the Nevada State Education Association, a representative from the Clark County School District, and a student representative.

During the first year, the Council spent time learning about what is currently in place for certification in the Department of Education, the make-up of the Commission on Professional Standards in Education and its relationship to teacher education, programs in place in each of the colleges at UNLV, and most importantly what the goals and tasks of the UCTE would be. As a member of this Council, I have found our meetings to be most interesting, informative, and beneficial. I believe that K-12 teachers and post-secondary education personnel need to have the opportunity and structure to meet together to develop a closer working relationship concerning teacher education, plus removal of the 'blame' syndrome that usually occurs between the groups. The ultimate goal of the council is to be the body that determines Teacher Education programs from all aspects of the University, not just the persons in the College of Education.

In 1982, the University of Nevada, Las Vegas's College of Education and the Clark County School District formalized a Student Teaching Program Council. At that time they were noticing that criteria needed to be developed to identify teachers who desired to have a student teacher or were being assigned one. They met once last year with the UCTE and I believe we had very productive discussions. The Council's more formal structure will not only improve and strengthen the student teaching program, but also the relationship between the University and the Clark County School District.

At the University of Nevada, Reno, for the past twelve (12) years, the Teacher Education Board has been functioning. Its members represent each department that feeds into the College of Education plus the Schools of Agriculture and Home Economics. During the 1984-85 year, this Board, under the direction of Dean Frank Meyers, will be inviting different representatives from the Reno area to speak to them concerning teacher education. At the end of the year, the Board will consider adding another 'outside' the University representative.

The University of Nevada, Reno's College of Education, also, has a Citizen Advisory Board whose 16 members are ultimately selected by the deal of the College of Education, from among organizations in the community. Their purpose is to provide research, promote teacher preparation and redirect or create new funding sources for prospective teachers.

Nevada's 1983 Legislature created two special commissions, one which was purely legislative in makeup, and the other which was to study special learning problems of students with a representative of the Nevada State Education Association, one Assemblyman, one Senator, and a representative of the State Department of Education. Although most of the work and study was with the different types of special learning problems, there did surface the fact that early identification is extremely important in order to begin to solve the problems. And of course, during that discussion surface the fact that in teacher education programs, very little if any courses are offered that prepare a teacher to identify early special learning problems. There will be recommendations from this commission to our 1985 legislative sessions to begin the early identification in teacher education programs.

Now, I want to address the specific topic I referred to in the beginning of my testimony. First of all you need a bit of background information on Nevada's educational institutions structure. Our University of Nevada System is constitutionally created with no connection, involvement or responsibility to the State Department of Education. In the past this has been less than desirable because as certification or recertification requirements were changed, the University did not always offer the courses needed. Therefore, a lot of our teachers went out of state to enroll in the courses they needed to improve their skills as teachers and obtain master degrees. So the credibility of the University was not always the best. However, in the last five to six years that has changed, and the University of Nevada System has greatly improved. This I believe has occurred because of the change in the deans of the Colleges of Education in the late 1970's. With both of the deans on the Professional Standards Commission, we saw a drastic improvement in the communication and cooperation level between the Department of Education and the University System.

Through the efforts, hard work and strong desire to improve the Teacher Education Programs in the Colleges of Education, a document was conceived called the "Teacher Competency Assessment". This document has four components: Basic Skills, Subject Matter, Initial Teaching Year, and Administrative.

The Basic Skills component ascertain that the students entering the colleges of education are literate. The Subject Matter component is to ensure that the preservice teacher knows the content which he or she will be teaching, and in this section is also an exit assessment before graduation to again provide documentation of the prospective teacher's knowledge. The Initial Teaching Year was the Commission's answer to a sore subject in Nevada's legislature called 'internship'. (That battle had been fought in the mid-seventies and left many a person with a bitter feeling about internship.) The original proposal has now been completely changed and the State Board of Education, on Friday, will receive a new proposal. It proposes to establish professional development centers in regions throughout the state to assist, train, provide research data and materials in the appropriate programs for each first year teacher in Nevada - whether Nevada trained or out-of-state trained. The last component is the Administrative one. This is designed to improve the evaluation skills of the administrators in Nevada.

As you can see, Nevada's teachers are very involved and have had a great impact on the Teacher Education program.

We are committed to improving the quality of the teaching profession and also maintaining that quality of teachers in the field. Our strengthening of certification and recertification requirements prove our commitment.

We believe that standards for admission to and graduation from teacher education programs must allow for only the best to enter and exit. Our support for the Teacher Competency Assessment document proves that.

We believe that practicing teacher must have major roles in preparing future teachers, from designing teacher education programs to providing meaningful clinical experiences. Our active participation on the Commission for Professional Standards in Education, University Council of Teacher Education and Legislative Commission on Special Learning Problems speaks for itself.

We believe that the status of Teacher Education programs on our University campuses must have increased resources if the programs are to be of the highest quality possible and if our high school students are to be attracted to them. Our active lobbying for increased funding to will make this possible.

We believe that in order to attract college-bound students to enter the Teacher Education programs, the word 'teacher' must be accorded a higher status, AND the salaries of teachers become commensurate with other professions that require similar preparation. This is the ONLY way that our profession will attract and maintain the quality in prospective teachers.

sms

ADDRESS TO THE NATIONAL COMMISSION ON EXCELLENCE IN TEACHER EDUCATION, AT THE PUBLIC HEARING CONDUCTED AT SAN FRANCISCO STATE UNIVERSITY, OCTOBER 23, 1984

JORDAN RIAK

I thank the Commission for the opportunity to address the distinguished panelists. I wish to make a plea not only for the better and more effective training of teacher candidates, but to press, as our organization has done since its inception, for the rights of children to receive an education without physical and psychological abuse, racial discrimination or sexual molestation.

In this time of re-evaluation of American education, many voices are being heard. Some are frightened and anxious over change. Other voices are optimistic and advocate better education, better serving our teachers and our children.

Yet, in all this discussion, no other major organisation has called, as Parents and Teachers Against Violence in Education has called, for public recognition of the need to raise the moral standards of teacher conduct. No other organisation, not even the excellent child abuse prevention programs now being emplaced in the schools, have called for the need to promote and defend the psychological health of teachers. Perhaps it is unstylish to discuss morality and mental well-being instead of training and course units, but the need to establish guidelines of professional discipline and responsibility in accord with modern teaching methodology remains urgent.

What are we to make of the simple and sad fact that many teachers and school districts depend, even insist, upon the prerogative to beat children?

I am not aware of any teacher training program in America which approves of and emphasizes the value of punishment in classroom management. All leading pedagogical methods and all leading educational theorists advocate non-violent and humane means of directing and modifying pupil behavior. It is universally recognised that the teacher should promote pro-social skills, self-esteem and the mental well-being of pupils. No training program endorses the punitive model of the prison guard as appropriate for teaching.

Yet, in forty-five states, in spite of the opposition of the leading educators, sociologists, pediatricians, psychologists and psychiatrists, child beating is legal on a statewide basis. Thirty-four states have laws either permitting or endorsing corporal punishment of school children. One state has a law prohibiting school boards from abolishing child-beating. Another prohibits State Social Services or County Medical Examiners from investigating allegations of child abuse by state teachers.

We must ask the Commission to consider priorities. We are a nation where at least 1.5 million children are beaten each year by teachers in the name of discipline. We are a nation which shares with the Union of South Africa, the Islamic Republic of Iran, and Australia the shameful distinction of being one of the few permitting the beating of children by teachers.

What is most urgent and necessary to promote excellence in teaching? Is it training teacher-specialists for the needs of the gifted, the artistic, the handicapped, those interested in computers? I think not. We, as a nation, must first address the impact of psychological and physical abuse, racial discrimination, and sexual molestation by teachers, all practices exonerated by the catchword 'discipline'. When teacher malpractice is contributing to the beating down and out of millions of children, especially children of color, when school administrators are unable to control or even to recognise the presence of abnormal individuals in the teaching profession, it is imperative we begin to arm teacher candidates with the power to recognise demoralisation, to maintain their own mental health, and to resist becoming accomplices to pre-existing evil conditions and practices.

Nearly everyday, in every part of our nation, there are reports on the sexual misconduct of teachers with pupils. Beatings, because they are so universal, are not even newsworthy unless they result in severe injuries or are particularily embroidered by a sick teacher's inventiveness. Last year, there were twenty-eight documented cases of children requiring emergency room treatment from being beaten by teachers. This statistic comes from only one emergency room in one hospital in Columbus, Ohio. The media took no notice. It requires violence and cruelty at the level of teachers forcefeeding five children tabasco sauce as in Peoria, Illinois or a teacher whipping fourteen children with a leather strap for talking as in Waynesville, North Carolina, to result in local news coverage.

This all leads to the reasons we believe American education is a negative, frightening, discouraging, painfully anti-learning experience for so many children and teachers. It is not lack of funding. It is not low teacher salaries, nor is it lack of specialised training and programs that is to blame. It is certainly not the limits on teacher authority over pupils. The blame lies with the number of demoralised, psychologically ill teachers and demoralised, inept school administrations. There is little recognition, but much denial, of serious misconduct, even crimes against children by teachers. Due to tenure rights, the fear of law suit by dismissed teachers who haven't actually been convicted of a felony, and because the cost of dismissal proceedings, school boards, good teachers and administrators have little option but to tolerate abnormal colleagues and child-injuring practices. A nation-wide search of school records by Professor Bridges of the Stanford School of Education turned up only 86 formal teacher dismissals in the last 43 years. Is any one naive enough to believe that only two teachers a year in all of America deserve dismissal?

The following cases illustrate that misconduct by teachers is, practically speaking, decriminalized and does not constitute a basis for decertification.

In 1980 Donald Rogers, a tenured elementary school teacher in Fremont California, was put on trial for allegedly molesting his pupils. He was acquitted, despite the testimony of many children. His defense successfully argued that no one could prove, as required by California law, that acts such fondling the breasts and buttocks of 4th grade girls were done with sexual intent. After his acquittal, dismissal proceedings by the Fremont Unified School District were dropped. In 1982, the District Attorney declined to prosecute him on the basis of new allegations by children. He remains assigned, *as is his preference*, to classroom duties with 4th graders.

There is the case of Lance Miller, a high school teacher who was charged with felony assault and misdemeanor child molesting for blindfolding and tieing a boy to a rack and experimenting with various sexual devices on the child. He plea bargained having the original charges dropped in return for a guilty plea to simple assault. He is still a teacher in California.

This year, after new public complaints against Donald Rogers and Lance Miller, the Fremont City Council unanimously passed a resolution calling on the State to strengthen laws regarding the sexual and other abuse of minors by adults.

The California Teachers Association criticized the resolution. Ned Hopkins, their representative, said it is misdirected of the public to ask for laws requiring school boards to be tougher on teachers than criminal statutes are. Regarding cases such as Miller's, when a teacher plea bargains out of felony charges stemming from misconduct with a student, Hopkins said, "The problem is with the plea bargaining, not the school board."

There is Robin Heil, whose firing for solicitation was thrown out on appeal despite the evidence of numerous sexually graphic letters to a student. His teaching credentials have been restored by the Callifornia Commission on Teacher Credentialling. Robin Heil is sueing to gain back his old position in the Bakersfield High School District because, as he puts it, "I am entitled to."

As a Society, and as caring teachers, we share an instinctive revulsion against the criminal who victimizes children. Yet when the offender is a friend and a colleague, far too many of us would rather not acknowledge that unprofessional and immoral acts have occurred. Too many of us would rather sweep under the rug the ugly fact that many children's education and mental health are being negatively impacted by abusive, molesting, or racist teachers.

The search for teacher excellence must start now. We must end the national cover-up and tolerance of teacher misconduct. We must finish by promoting moral excellence and psychological health among teachers.

Teacher excellence cannot be measured just by test scores, units and programs completed, and credentials obtained. It must be measured in moral fitness and mental well-being. The rights of children, our most vulnerable and dependent minority, to mental health, the dignity of their persons, to an education without violation, discrimination and fear, must be given priority over any consideration for the privileges of adults.

PARENTS AND TEACHERS AGAINST VIOLENCE IN EDUCATION, the international childrens rights organization, recommends the National Commission on Excellence in the Teaching Profession promote the empowering of teachers to defend and practice moral and healthful conduct appropriate to a democratic, color blind and gender neutral society. We must train teachers to maintain their mental health, so they can resist the syndrome of teacher demoralization. We must keep new teachers from becoming morally paralyzed accomplices to senior colleagues who are racists, child abusers or pedophiles.

Teachers are simply unprepared for entry into demoralized schools. They recieve no training to cope with the stresses of schools where violence is endemic, where administration is inept and piggishly authoritarian, and where racial discrimination, beatings and humiliation are standard child management practices. They are unprepared to resist manipulation by the perverted, streetwise, courtwise offender who is also a teacher.

The frequency of Corporal Punishment is proof enough that despite the advances in teacher training, despite the emphasis on child development and humane pedagogy, that current teacher training is inadequate to maintain the psychological health and moral effectiveness of teachers.

We make 4 specific recommendations.

1) We urge teacher field training to extend beyond classroom management. We recommend empowering new teachers to deal effectively with administrators and other school personnel. Laboratory and field training should include interpersonal management and crisis resolution so new teachers may be psychologically armed for entry into the blackboard jungle.

2) We urge the institution of free psychological services for all teachers without prejudice to their careers. It is imperative that the mental well-being of present teachers be supported.

3) We urge the development of screening procedures to end the certification of pedophiles, racists and other unfit candidates. Child abusers, molesters and bigots must be stopped from gaining authority over children.

4) We urge adoption and enforcement of a national professional protocol stating that every teacher has a duty to act as a model of adult moral conduct, consideration and self-control. It is time that the standards of teacher conduct concur with the philosophy of modern pedagogy.

I ask that the Commission and the American public consider fully these cost-effective, humane and realistic proposals. Our common concern for our children, the quality of the teaching profession and our future demands that we meet the challenge of ending teacher demoralisation. Thank you for your attention.

Jordan Riak,

President

PARENTS AND TEACHERS AGAINST VIOLENCE IN EDUCATION

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SECOND-ORDER CHANGE AND THE RECONCEPTUALIZATION OF THE TEACHING-LEARNING PROCESS

In his classic study, The Anatomy of Revolution, historian Crane Brinton examined the history of reforms in pre-revolutionary France and likened the process to the crowding of an old attic. New furniture kept being added, but most of the old furniture remained, it was still the same old attic, and the structure finally disintegrated. Reading "A Nation at Risk" last year, I had both a sense of deja vu and a remembrance of Brinton's words. Although so much of the report was extremely valuable, I had a gnawing sense of new furniture being added to the same old attic. In the early 60's it had been Sputnick. In the late 70's it had been low test scores. Now it was the computer. Most of the new furniture has been attractive. In each case it has probably improved the quality of the attic. In each case the attic itself has remained, unquestioned. It is my contention that we need to leave the attic and that unless we do so most of our reform efforts will be wasted.

Numerous educational thinkers have described the limits of the habits of thought which have characterized American educational reform and years ago, in The Practical, Joseph Schwab called for an "anticipatory generation of alternatives" to replace the crisis mentality which has been our favored modus operandi. Taking a leaf from Schwab's work, I am addressing you today to suggest that perhaps the most important change we as educators can make is to step outside the conceptual framework in which and through which we have been operating. In other words, we need to step out of the attic and begin to work together to conceptualize new houses for American education. If we fail to do so, new approaches to improving the quality of teaching will, at best, merely redecorate the attic and computers (as one example) will become just another piece of furniture.

To take this thinking further, it is necessary to look for a moment at the concepts of first-order and second-order change as delineated by Paul Watzlawick and his associates in the book Change: Principles of Problem Formulation and Problem Resolution. First-order change is defined as change "that occurs within a given system which itself remains unchanged," while second-order change is one "whose occurence changes the system itself." One behavioral example of this would be the difference between having a nightmare in which one runs, hides, fights, etc....but remains in the dream state(first-order change) as opposed to stepping out of the dream by changing from a dream state to a waking state. Going a step further, Watzlawick, et. al., indicate that in first-order change processes the "solution" is very often the very keystone of the problem whose solution is being attempted. In a sense, the solution is the problem. Additionally, the authors note that while first-order change always appears to be based on common sense ("more of the same"), second-order change usually appears wierd, unexpected, and uncommon sensical.

I am suggesting that almost all of the changes we have been involved in within the field of education in recent years have been first-order changes and, as such, have been part of the problem, contributing to the perpetuation of the attic (or the dream state!). If I am correct, then a multitude of innovations, from post-holing in social studies, to humanistic classroom approaches, to mastery learning, to colleagial team building, may well be first-order changes. Indeed, most of the ways to which we have become accustomed to thinking about, talking about, and enacting educational improvements, however valuable, may well be helping to perpetuate a way of functioning that needs to be approached through second-order change.

Recognizing the limits of my own thinking, I want to take all of this a step further in suggesting one possible way out of the attic and one possible reason why we need to get out. I am aware as I do this of the statement by S.J. Lec "Now that you have broken through the wall with your head, what will you do in the neighboring cell?" My "bold" thinking may well be taking place in a neighboring cell!

For this purpose I am going to focus on an area I know well and which is undoubtedly one of the major forces undermining the sanctity and the usefulness of the attic, the impact of television.

More than fifty years ago, the great German art critic, Walter Benjamin, wrote that it was going to be difficult and perhaps even impossible for any child raised in the "howling blizzard of signals" to find his way back to the "exacting silence" of the book. How dramatically, he asked, would a culture of distraction alter all discourse within it? In his recent insightful book The Shock of the New: A History of Modern Art, Robert Hughes picked up where Benjamin left off and wrote:

> Benjamin died in 1940, but what he feared from radio, movies and advertising came a thousandfold truer with mass television. The box has done more to alter the direct, discursive relationship of images to the real world...than any other invention in our century. This is not really a matter of good or bad programming... the point is that some, at least, of its cultural effects are intrinsic to its form rather than its content.

Hughes goes on to describe the ways in which the form effects our thinking, our construction of reality, and our behavior, including in his commentary: recognition of the implication of being able to change from channel to channel "a parade of interchangeable ghosts," the emphasis on vicarious experience, and the ultra vivid and abstract nature of the electron color.

A small number of educators have also addressed themselves to the impact of television on education. In his book Public Education, Lawrence Cremin described many of the social forces effecting education and then

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noted:

> And beneath all of these — and relentlessly affecting them — has been the educational transformation wrought by mass television... Once one recognizes that television teaches ... the fact of television in 96 percent of American homes being looked at six hours a day is in itself a revolution. That revolution has drastically altered familial education. It has radically changed the education of the public at large. And it has fundamentally transformed the context in which all schooling proceeds.

Cremin went on to suggest that in reconceptualizing public education, the role of television as an educational force needed to be given considerable weight.

Others, such as Tony Schwartz in Media: The Second God and, more recently, Patricia Greenfield, in Mind and Media, have described the effects of the medium on children and adolescents. Greenfield focuses primarily on how television is transforming cognitive processes, the way in which information is processed, and the way in which children construct reality.

In addressing the issue of what implications this has for our conceptualization of teaching and teacher education, the following need to be considered:

1. Television is a medium with a dramatically different form than print or speech. The nature of that form has a substantial effect on cognition, information processing, and behavior. Among the many factors effecting the viewer are (a)the rapidity with which visual images are conveyed, (b) the non-linear communication of visual images (ex. dissonant juxtapositions), (c) frequently fast-moving "story" lines (ex. in Hill Street Blues a one hour program frequently includes four or more sub-plots, each of which usually moves very quickly, if often superficially from a content standpoint), and (d) the viewer's power to continually change programs (with, in some cases, as many as 30 to 35 choices).

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2. Most children have clocked thousands of hours of television viewing time and have already been heavily conditioned by the medium before they ever set foot in a classroom.

3. The classroom continues to be a place in which print and talk dominate, in which information is presented in an almost totally linear mode, in which the pace is slow (as compared to television, and in which the participants have minimal control over the material being presented.

Given these factors, albeit highly simplified and abbreviated, it should be apparent that there is a considerable dissonance between the medium of television and the medium of classroom teaching. Apart from other important questions such as "how can children's critical thinking be developed in relation to television?" and questions related to compensating for what television doesn't provide, it is likely that the medium has made traditional conceptions of classroom teaching and, thus, our traditional conceptions of teacher training, antiquated. Additionally, although the exploration of more effective utilization of television in classroom teaching may be a viable response to the impact and potential of the medium, it is still essentially a first-order change response and, thus, its value is very limited.

Certainly, as Cremin suggests, we also need to be exploring the relationship between television, family, and school as we develop our new conceptualizations. Certainly too, television is not the sole force affecting the contemporary learner and may not even be the primary factor. Changes in the family, the growing number of "latch-key" children, changes in male and female roles, changing societal norms regarding "authority", and, most certainly, the computer, are all forces impacting education.

I have described this scenario primarily to illustrate one variable which I believe suggests that we are indeed functioning in an old attic and to suggest the importance of engaging in the conceptual blockbusting that is a necessary part of second-order change. I am also suggesting that:

1. Teacher education ought to be addressing some of these changes and their implications for teaching.
2. That one of our functions as teacher educators should be to experiment with new ways of conceptualizing and structuring the teaching-learning process.

We do need to continue to work to build new furniture and to do a better job in the more basic and traditional everyday activities of teaching. At the same time, to continue to function within the same conceptual framework, with little consideration of second-order change, the type of thinking all too frequently reflected in "A Nation at Risk," would be wasteful, short-sighted and, in many ways, absurd.

Mark Phillips
17 October 1984

TEACHER EDUCATION AT A CROSSROAD

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In the rash of reports describing the plight of schools, the declining quality of education in our nation, and our nation's low regard for teachers as evidenced in their salaries, we now turn public attention to the teachers themselves and their professional training. If educational quality is poor, the reasoning proceeds, it must be the fault of the teachers. If the teachers are inadequate to the task, it must be the fault of those who trained them. One could paraphrase the old rhythmic folk tale "The House the Jack Built." However, the problem cannot be so simplistically described in a linear cause-effect paradigm. Pre-service teacher education is one element of this complex picture, college-university teacher training programs are part of that element; but an analysis of that single complex aspect must include awareness of the political dimensions of teacher credentialing which are controlled by State legislative and regulatory bodies. State laws which regulate credentialing and teacher preparation programs are often the result of action by legislators, even individuals in the state legislature, who have minimal understanding of the complex issues surrounding teaching and learning in our schools. Occasionally these policy makers are openly hostile to teacher education. More often they are uninformed about the predictable consequences of legislation.

In California, in two decades, we have seen major changes in legislation affecting the preparation of teachers. Teacher preparation programs have changed accordingly, and in many instances these changes were not improvements. For example, the prevailing view that teachers must be well educated individuals has been accompanied by the opinion that pedagogical training was unimportant to effective teaching. While we have not gone as far in California as some policy makers have proposed to eliminate professional training, we are in a situation where a student wishing to teach is almost unable to begin learning about teaching until after completing the baccaulearate program. The difficult aspect of this is that teacher education and the development of effective and creative teaching skills must be accomplished in one academic year. Since one-half of the prospective teacher's preparation is mandated as student teaching, only nine semester hours may be required (outside of a reading methods course) to develop the specialized knowledge and skill necessary for classroom organization and management, curriculum, methods and models of teaching, the research base for teaching and learning, not to mention school law, professional ethics of conduct, . the social and philosophical foundations of education in our society or knowledge of human development. It takes a beginning pre-service teacher some time merely to develop confidence in being in a classroom. Putting it all together, personal style, professional expertise, understanding of the special group of learners in that class, interpersonal relationships with other professionals in the culture of the school takes time and emotional energy. Simultaneously the student teacher is expected to know how, why, when, and what to teach. This is too much, too fast. We do not permit teacher educators to use knowledge of adult learning most effectively in the training of teachers. It takes much more time than California will permit, even at the level of novice teacher.

Then, such eager, hopeful, and partially prepared beginning teachers are employed by school systems and placed in schools with almost no support. They are expected to "sink or swim." It is little wonder that many leave after only one or two years, just as their skills as professional teachers could be solidifying.

I do not recommend a longer period of professional preparation at the expense of undergraduate liberal arts education. I do recommend, as educators have so many times in the past, an earlier introduction into teaching. With formal and non-formal opportunities to learn about teaching, to learn about children and schools, during the undergraduate years, recruitment and screening of potential teachers would be more rational and less wasteful of human lives and institutional resources. Such opportunities are now rarely supported by institutions of higher education because they are not required and faculty loads cannot be diverted to those unnecessary activities. It is partly a matter of anti-education attitudes, but it is more often a matter of scarce resources in higher education.

It is well established that institutional resources spent on teacher preparation are much lower than those spent on training for other professions. There must be a stronger commitment made by colleges and universities to the education of teachers if the quality of pre-service education is to improve.

Intensive professional preparation should be reserved, however, to the fifth year and beyond. I do not advocate cutting deeply into the undergraduate curriculum to provide teacher training in bits and pieces---a class here one semester and another fragmented in the next. Prospective teachers, once carefully selected and admitted to a professional program, should be able to devote their full time to development of the knowledge and skills required by their profession. A methods class in the junior year, separated from integrated application, is a waste of time and is often seen by students as trivial or disconnected.

One year of preparation is woefully inadequate, however. It may be enough for a beginner, if the schools offer unique assignments which continue the development of the new teacher. Many educators have recommended a first year internship which would give the intern a partial teaching load and allow time for careful preparation, follow through, and coaching on the job. If career ladders are initiated, this plan should be incorporated as the first step in the development of a career teacher.

The admission of less academically qualified students into teacher preparation programs, resulting in teachers who are not intellectually gifted is a charge currently leveled against teacher education programs. In C. Emily Feistritzer's controversial report, that accusation is most heavily directed toward small colleges which are said to accept any candidate in order to fill their classes. This charge is not without foundation, but is unfairly restricted to small institutions. State institutions preparing teachers can be included among those who have been concerned about declining enrollments in the past decade.

It is obvious that the demand for excellence in teacher recruitment is going to be frustrated by the emerging shortage of qualified teachers. We are all familiar with the facts that job scarcities turned away many who might have thought of teaching. We know that recent social and economic changes in our society have opened up opportunities for women in non-traditional fields and drew many bright and talented women and minorities into other fields. These opportunities continue to pull away some of our best beginning and experienced teachers.

In order to attract the best students into teaching, the image of the profession must change. Basic to the image, of course, is the financial compensation. But also important are the opportunities for advancement and challenge, for self-development and fulfillment, and for the personal pride and satisfaction that can accompany teaching. Incentives must be created in a variety of ways, but the value of teachers to a society needs to be highlighted through direct campaigns to reshape public opinion regardless of salary increases. Further, schools must be made better places for teachers to work; and teaching as a career must be conceptualized in a way which provides time for teachers to continue to grow and develop.

Sabbatical leaves, opportunities to work with colleagues, time during the school year and school day for special projects, shared decision-making within schools, staff development programs within districts which are substantially funded as part of the expense of schools, and public recognition of the work of individuals and teams of teachers must be deliberately planned as incentives. Merit pay plans are the lowest common denominator in making school environments healthy and nurturing for the development of outstanding teachers. Merit pay and linear career ladders, often are designed as if they were synonymous. These two plans do not get to the root of teacher burnout and loss of commitment. Higher pay will attract new teachers, and may provide a pool of more highly qualified students from which to recruit. But higher pay is not enough for the teacher in service who also needs the respect of self and colleagues, challenge and variety on the job, public recognition, and a working environment which instills pride.

In summary, my testimony is an appeal to see teacher education as a continuum, with planned transitions from pre-service to beginning teacher and on through multiple branches of opportunity for career educators. Poor teaching in our public school classrooms cannot be blamed on inadequate teacher education programs, although some responsibility certainly may rest there.

The history of the American Association of Colleges for Teacher Education, which initiated the project of which this hearing is part, has focussed almost exclusively on pre-service education. If that is the focus of the hearing today, I make the following recommendations:

1. National standards and guidelines for teacher licensing need to be considered with care. However, I believe they should be considered, but this is a long way from a solution to our problems.

2. The formal professional education of teachers should be limited to qualified candidates with baccalaureate degrees

who also meet an acceptable standard of academic performance measured objectively, not determined on the basis of college grades. A commitment to teaching as human service and to the intellectual activities appropriate to a professional teacher should also be weighed in the selection and recommendation of teacher candidates.

3. All beginning teachers should be slowly and deliberately inducted into teaching, after their initial year of preparation, through a 6th year paid internship with less than full time teaching responsibilities, and during which they have substantial support and guidance from professionals in the field. Wherever possible, this should include the teacher training institution in a partnership in continuing the training of the new teacher.

4. Accreditation of teacher preparation programs in institutions of higher education should include evidence that those programs integrate research with clinical practice, that the faculty involved in teacher training are also involved in research related to clinical practice, and that the students admitted to these programs attain a level of excellence (not minimal competence) which enables the institution to certify their capabilities as beginning teachers in clearly defined terms.

5. Recruitment of non-traditional age students, who have had successful careers in other fields, should be encouraged in order to obtain excellent candidates. We have seen an increase in mature applicants from industry, business, and a wide variety of fields whose life experiences and knowledge will enrich pupil learning. These candidates must also be carefully prepared to teach and supported in

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their beginning year. We are finding this more experienced group of candidates more committed, more intellectually sophisticated, and often more eager to learn than students who are freshly out of college.

6. Finally, the on-going professional development and the expanded and updated education of teachers needs to be a joint commitment of school districts and institutions of higher education. Mastery of knowledge, both old and new, should be a lifelong process for educators whether they be university professors or teachers of the young. Universities should welcome their role in making this happen, and school districts must also direct resources to this end.

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TEACHER EDUCATION

Gerald A. Fisher, Chair, Department of Physics & Astronomy
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Last year, one of this department's best students found a position teaching physics and mathematics at a high school in San Francisco.

I honestly felt that he belonged in some Ph.D. program but his love of teaching and especially of young students rendered him immune to my arguments and advice.

While a student, he had graded papers, prepared solutions, handled recitation and problem solving sessions, assisted various lecturers in the preparation of the course laboratories and had, of course, mastered our physics courses and the better part of the mathematics curricula.

It was not easy for him to locate this high school teaching position since he did not possess a credential and thus the entire public school sector was closed to him.

The private schools were under no such restrictions and he spent a quite happy year in this domain.

In my judgment, this is but one more area where the public sector fails to compete with the private.

I am not completely familiar with the present scheme for certifying someone as qualified to teach physics in high school or general science in junior high, but I can attest to the fact that the student who obtains the relevant credential is far less qualified than the candidate who obtains just the B.A. in the discipline.

I would, therefore, urge that the restrictions preventing the latter student be removed and that he or she be allowed to compete and perhaps satisfy the significant need that exists in our schools for well trained people in the sciences.

Thank you for your consideration.

G. A. Fisher

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A UNIVERSITY-SCHOOLS PARTNERSHIP: PROSPECTS AND PROMISES

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Prepared for Regional Hearing
National Commission on Excellence in Teacher Education
San Francisco, California
October 23, 1984

A PREAMBLE

Representatives from the College of Education at Brigham Young University and the Superintendents of Alpine, Jordan, Nebo, Provo, and Wasatch School Districts, recognizing the many areas of mutual concern in their respective endeavors, have proposed to form an educational partnership for the purpose of more effectively bringing to bear their varied resources upon the problems common to them. The institutions will cooperatively attempt to improve schooling by addressing the following goals:

1. Develop conduits through which educational practice in the districts will become more congruent with what is known about learners, the learning process, and teaching effectiveness.
2. Develop teacher and administrator preparation programs specifically tailored to meet the needs of the public schools which will involve both the university and the districts in preservice training, field experiences, and initial inservice training. These programs will include preparation for both teaching and administrative personnel.
3. Establish key schools where educational practice will reflect what research shows to be effective in promoting learning.
4. Develop strategies which will ~~attract~~ enhance the educational profession to the extent that it will attract the very most capable students into the education profession.
5. Coordinate research and evaluation of educational programs in member institutions.

Brigham Young University--Schools
Partnership Preamble
April, 1984

A BEGINNING

With their preamble ratified, five Wasatch Front[1] school districts, accounting for one-third of the students taught in the state of Utah, and a major College of Education, accounting for one-half of the teachers prepared in the state of Utah, formed THE PARTNERSHIP.

These units had enjoyed a continuous and reasonably close relationship over the years in the preparation and training of teachers and administrators. The relationship had not, however, warranted the designation of a true partnership. This more formal concept was born out of discussion with Dr. John I. Goodlad, then Dean of UCLA Graduate School of Education, who had been invited to be a Distinguished Visiting Professor at BYU for a twofold purpose: to work with the College of Education in rethinking its role, and to look at the relationship of the University, particularly the College of Education, to the surrounding public schools.

POSSIBLE PURPOSES, PROBLEMS, AND INTERESTS

From these discussions emerged some general goals and purposes as well as some specific concerns. The school districts and the College would move into an even closer collaborative role. Out of the relationship could come the creation and development of key schools. The teacher education program would be reviewed so as to make appropriate use of the key schools. The college faculty would, in turn, work with personnel in the public schools to ensure the best schools possible. Care would need to be taken, however, to assure that in the process of functioning as a partnership the self interest of the individual units would be maintained, that no unit would ever become merely a servant to another or others in the partnership. A fine balance would be needed to assure that the partnership functioned as a whole to satisfy the self interests of each participating party. Otherwise, each unit would go about its business and collaboration would occur only on the unimportant matters. Desired by all was a REAL PARTNERSHIP--not the noblesse oblige from the university to the common man at the public school level, an often hinted at if not openly stated fallacious attitude in some education communities. The self-interest notion would have to be there constantly.

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[1] A geographical designation for the major population center in Utah.

Four distinct interests emerged from the members of the partnership:

1. Better teacher/administrator education;
2. Better staff development (inservice);
3. The key school concept; and
4. Research and Evaluation.

The first two are interests common to all education communities. The third, key schools, is Goodlad's idea of "schools whose special function is to share as centers for developing practices not now established, practices involving some risk-taking and requiring special cultivation" (A Place Called School, p. 300). Outstanding career teachers and teacher leaders would be employed. Beginning teachers would intern in these schools. Space would be provided for University faculty members to carry on scholarly inquiry in research and development (the fourth area of interest) and to share their expertise with the key school faculty. Career teachers and teacher leaders would, in return, serve as clinicians in the College of Education. Other key school faculty would spend time as junior members of the school staff in preparation for career or teacher leader positions. Goodlad's concept of key schools encompassed the four major self-interests of the members of the partnership and provided the environment in which better preservice teacher/administrator education, better inservice education of experienced teachers (staff development), as well as research and evaluation could occur simultaneously and in concert.

In the partnership the district superintendent would be a key figure, playing an extraordinary role. He could, of course, block the entire process of change, either intentionally or unintentionally. Teachers and principals would need to hear him say, "This is important!" Therefore, the partnership would depend heavily on the superintendent's role. In so doing, a problem might arise: the focus would be on the superintendent but the target would be the individual schools and the people in those schools. The superintendent, of necessity, would have to function with care, providing the necessary impetus while at the same time directing the energy toward the key schools developing the programs. His (or hers) would be the role of a conduit through which the charge could flow.

Of concern also was the question of numbers. What size population, now many districts, how great an area could the partnership reasonably and effectively include? What would the State Office of Education consider a critical mass, that is, significant enough to be of critical importance in its decisions and impact? Five districts, all reasonably contiguous to the

Brigham Young University, representing both urban and rural constituencies and numbering in student population from a high of 55,000 to 2,500, made up the public school sector of the partnership. As mentioned earlier, with the selection of these five districts the critical mass now showed that the University provided half of the teachers prepared in the state and that the given districts provided one-third of the students being taught in the state. Membership would remain open for additional districts to join with the unanimous approval of the Governing Board.

Two local innovations in education affected the formative discussions: plans for year-round education were in the final stages in one of the districts involved--a pilot project in Utah--and the State had just mandated a career ladder program for all public schools. Year-round schooling would mean that practitioners desiring to pursue further education would need to be accommodated in some way other than the traditional summer school--a problem for which the University must find a solution. But year-round schooling would also mean an added time for teacher candidates from the university to participate in field experiences. Career ladders would likewise provide challenges as well as assets to both parties. The university could be involved in training the teacher leaders who, in turn, could serve as cooperating teachers in the schools. The timing of these innovations was extremely suitable to the purposes and interests of all concerned.

GOALS, RESPONSIBILITIES, AND ORGANIZATION

With a fresh sense of urgency, **THE PARTNERSHIP OF BRIGHAM YOUNG UNIVERSITY AND FIVE SCHOOL DISTRICTS** became a formal organization on April 3, 1984. Its Governing Board was composed of the five Superintendents of the School Districts, the Dean of the College of Education at BYU, and an Executive Secretary. Its goals and general purposes were

1. To improve schooling in its geographic area;
2. To develop educative communities through which to share current theoretical and instrumental knowledge; and
3. To facilitate the identification, clarification, exploration, and reduction of important educational problems by drawing on the appropriate resources of all partners in THE PARTNERSHIP.

Members of THE PARTNERSHIP were charged with designated responsibilities:

1. Commitment to involvement for a number of years to be determined by the Governing Board;
2. Approval of participation from school board personnel;
3. Provision of release time for the superintendents and college dean to attend meetings and to give leadership to THE PARTNERSHIP;
4. Priority of PARTNERSHIP participation above district or university policy if and when necessary;
5. Establishment of internal procedures within the district or university to ensure communication, harmony, and support for PARTNERSHIP activities;

6. Identification of agencies that educate beyond the school or university, and collaboration with them in any way useful to education;
7. Seeking of knowledge to address identified needs and problems;
8. Limited financial responsibility in addition to that provided through the operating budget;
9. Development of additional projects or activities not yet identified but possible in the future; and
10. Maintaining of a close relationship demanding mutual commitment by all members of THE PARTNERSHIP.

The Board would make all policy decisions and oversee financial affairs. THE PARTNERSHIP would be financed through an operating budget backed by contributions of funds or in-kind services from member institutions. Operationalization would occur primarily through task forces composed of personnel from member institutions.

At the time of organization, the Governing Board designated special task forces: PREAMBLE TASK FORCE, TEACHER TRAINING TASK FORCE, ADMINISTRATOR PREPARATION TASK FORCE, and KEY SCHOOLS AND ALTERNATIVE PROPOSALS TASK FORCE. The completed document of the Preamble Task Force was quoted in its entirety at the opening of this article. The Teacher Training and Administrator Preparation Task Forces were quickly formalized and charged with their similar, yet dissimilar, responsibilities. Both were to develop a model for their respective fields.

TASK FORCE MODELS

The Teacher Task Force model was to span both the preservice phases of teacher preparation and at least the first two years of service in the profession, addressing the following concepts:

1. Interplay between theory and practice;
2. Foundations;
3. Field experiences;
4. Student teaching in clinical settings;
5. Cooperating teachers;
6. Feedback and evaluation;
7. Skills and competencies;
8. Relationship between major/minor requirements and content taught in public schools;
9. Screening procedures;
10. General Education; and
11. Admissions standards.

The model was also to address the support system and the role of the local school districts and the University.

The charge to the Administrator Preparation Task Force was not the same initially as that of the Teacher Task Force because ground work had already been laid. Prior to the formation of THE PARTNERSHIP five members of the College of Education, six school principals from three of the five school districts, and one representative from the Utah State Office of Education had formed a task force to review and revise the administrator preparation program at BYU. That task force had prepared an extensive document in which had been developed goals, objectives, and guidelines in nine major course areas related to preparation of school administrators. That document was passed on to the newly formed PARTNERSHIP Administrator Preparation Task Force, who was charged with reviewing the activities of the former 12-member committee, and with appropriate revision, developing a model program for the preparation of school principals, to address the following:

1. Relationship between theory and practice;
2. Broad professional understandings of learning/teaching theory and skills, curriculum development, instructional supervision, teacher, student, and program evaluation, staff development, leadership, management, school/community relations, research inquiry skills, and interpersonal relationships (the nine major course areas identified by the prior task force);
3. Field experiences;
4. Intern experience in clinical settings;
5. Screening;
6. Feedback from cooperating principals and University faculty, and
7. Support system and evaluation procedures.

The model was to span the preservice phases of administrator preparation and at least the first two years of service as an administrator, including development of selection, admission, and orientation procedures for potentially promising candidates.

Both Task Forces were urged to think creatively without concern for traditional programs or current state certification standards. Leadership in the State Office of Education had pledged cooperation and support to the developing PARTNERSHIP, assuring that reasonable innovations recommended by the Task Forces would receive careful consideration. Both Task Forces were to provide a progress report to the Governing Board in six months. THE PARTNERSHIP applied for and received a $10,000 grant from the State Office of Education to support the activities of THE PARTNERSHIP. They have subsequently submitted a proposal to The Secretary's Discretionary Program, United States Department of Education, for $100,000 to further support their activities. THE PARTNERSHIP was under way.

CHALLENGES AND FUTURE INTENT

Little information is available to guide us in an undertaking of this nature. Although partnerships between business, industry, and schools are numerous, evidence of formal and binding arrangements between public schools and universities is sparse. Lip service is common in speaking of the unity between and among institutions of learning. But the truth of the matter is that until the recent barrage of criticism and fault finding, both the public school and the university have carried on schooling quite independently of one another within boundaries intentionally drawn by both units.

This kind of isolation will no longer succeed. A cursory listing of challenges facing public education is almost overwhelming. Public attitude is negative toward both student achievement and teacher preparation. Reports on lack of "excellence" have flooded the press and other media, resulting in calls for reform. Meaningful support or funding is wanting at all levels--local, state, and federal. A general feeling of distrust prevails: between and among teachers, administrators, school boards, and the general public.

Regardless of the accuracy and truthfulness of the criticism, the validity of decreased financial support, and the "good reason" to mistrust--regardless of how much is lacking in the present state of affairs in education--the fault-finding blame syndrome is not the solution. The university and the school district are undeniably interconnected. Without a well-educated secondary student population, the university has at best an ill-prepared pool from which to draw. In order to advance the science of learning, universities need research sites and subjects. Teacher and administrator preparation programs need schools in which their candidates can have hands-on experience in training. Without a continual fresh flow of information from the public schools the universities would soon find themselves withering and ineffective. On the other hand, public schools depend on the universities for the critical basic research and evaluation essential for improving education. Programs such as Advanced Placement and teacher inservice are supplied by the university. Without such services the public schools could never hope to be more than mediocre, the charge presently leveled by some. Both units are in serious trouble, and the time to become involved in the solution is now.

The climate for THE PARTNERSHIP seems ideal. The career ladder program could lend itself nicely to the need for better prepared cooperating teachers in the schools. The key school concept can utilize those identified as master teachers. The State Office of Education's obvious receptivity to experimentation and innovation, pronouncing a moratorium on current standards and requirements in order to allow the necessary time for identifying and establishing more effective approaches to certification, is extremely helpful and encouraging. The schools are asking for greater involvement with the

University in both the preservice and the inservice of teachers. The University recognizes the need to remain involved with the training of those who are no longer students but have become the practitioners in the districts.

The work has only begun. But the prospects do look promising. With deliberate effort by all those concerned, THE PARTNERSHIP can reach those goals set forth in its Preamble, the foundation for more effective education on the Wasatch Front.

George C. Shaw, CTA Vice President
National Commission on Excellence in Teacher Education
San Francisco - October 23, 1984

The "Grand National Debate" for 1984-85 . . . and for other years to come . . . is "school reform."

As we shuffle through a National tidal wave of proposed educational reforms by state legislatures, Presidential commissions, governors' task forces, Rand Corporation reports, and continuing public opinion polls, we discover two hard facts . . . The American people are finally recognizing that its public school system has real problems; and the American people want to do something about those problems.

Some of what they are discovering, they don't like. Many discoveries bring positive responses, while some lead to a shrug of the shoulders.

It's not as though education minded speakers have not been talking about faults in public education for years. You'll notice that I didn't say we have been talking to the public . . . that would signify listeners - and millions of Americans - from all walks of life have not been listening.

Can we have entered an era of "enlightened self-interest?" Perhaps, but only time will tell. But, if we move as a united nation, at the state and national levels, time will tell us more rapidly and with certainty how adept we are at healing a wound that threatens an American foundationstone.

The National Education Association and the California Teachers Association have developed policy level school reform recommendations which I will summarize, with your permission.

Among the prime recommendations of N.E.A.'s Task Force on Educational Excellence are the following . . . and may I add that C.T.A. concurs.

- Only the best teachers should be hired in the Nation's school districts.
- Set the minimum salary of teachers at twenty-four thousand dollars ($24,000) a year to make teaching competitive with other professions that require comparable training and responsibilities.
- Educational decision-making authority must be situated at the school building level.

- Schools should guarantee that students "master" the subjects they take, not merely "pass" them.

- Class sizes must be lowered to provide students with individual attention; teachers must have adequate planning time, and must be relieved of endless paperwork.

- The relationship between administrators and teachers must change. Administrators are meant to support teachers -- instead, too often they only ham-string them. Administrators must be retrained to understand that what's important in a school is what happens in the classroom, not in the faculty meeting.

And, becoming an administrator must cease to be the only way a teacher can earn a half-way decent salary. Existing pay-differentials between teachers and administrators must be reduced or wiped out entirely.

Hopefully, as the "grand debate" continues, it will not lose its focus and fail to truly reform our public school system. To help keep us on a realistic track, the California Teachers Association has adopted these concepts of reform which it believes embodies certain other definitive actions. They include:

1) Improving the relevance and quality of instructional time.

2) Recruitment and retention of qualified, quality university and college students into teaching.

3) Retraining and updating of teachers and administrators already in the system.

4) Reduction of the number of administrative units in the governance of the public school system.

C.T.A. believes, with conviction, in these concepts. C.T.A. is dedicated to their implementation. C.T.A. fervently believes that an "action program" dedicated to the specific elements of reform must be taken to the Congress, the State legislators, the political parties, the Nation's power-brokers, the mass media, the civic-business-and-professional-organizations, and the people on the street. We must act with brain-power and educated muscle that we have seldom demonstrated.

But, what do we say to this vast cross-section of Americana about the finite elements of public school reform? What do we want the Nation to do about improving the relevant quality of instructional time? These are some of the reform measures C.T.A. wants:

1) Mandated minutes and hours of instruction in certain basic subject areas. There should also be reduction of mandates for non-basic instruction; and mandated in-day preparation time for all teachers at all levels.

2) Mandated, fully-funded equivalent of a six-hour day of attendance in an approved course of study for comprehensive secondary school students.

3) Mandated number of courses of instruction in basic subject areas for all secondary school students as a prerequisite to graduation.

4) Provision of state-funded auxiliary assistance to teachers in areas of clerical and bookkeeping duties in order to free teachers' time to teach.

5) Legal prohibition on interruption of classroom instructional time by administrative and/or lay sources.

6) Teacher authority to prohibit disruptive and/or violent students from attending the same school and/or class and interrupting instructional time.

7) Teacher discretion in allowing suspended students to make up work that has been missed.

8) Final and binding decision by teacher(s) as to pupil grades and evaluations and the decision to retain a student in a grade level.

9) Strengthened attendance regulations to give school districts greater authority to deal with non-attendance.

10) Mandated maximum class size standards with financial incentive for school districts to achieve class sizes smaller than state maximums at all levels.

What do we want the Nation to do about the recruitment and retention of qualified university and college students into public school teaching? These are some of the reform measures C.T.A. wants:

1) Sufficient funding of public schools to ensure salary schedules competitive with other careers of equal educational requirements.

2) State-mandated minimum academic qualifications for pre-teacher training screening of prospective teacher candidates.

3) A program of state scholarships for pre-service teacher candidates.

4) Requirement of a minimum of a one-year, full-time, state-paid student teaching internship under the one-to-one supervision of a full-time experienced classroom teacher prior to being credentialed after 6 years. The intern will not displace any currently employed teacher.

5) Requirement that the professional components of teacher training shall focus on classroom practice such as discipline techniques, diagnosis and prescription, learning theory, classroom management, curriculum development.

6) Ensure relevant college level pre-credential teacher training by requiring teacher training faculty to maintain current experience in the public schools at the level of the course they teach and that no teacher shall be displaced from a teaching position by this practice.

What do we want the Nation to do about retraining and updating the preparation of teachers and administrators already in the system? These are some of the reform measures that C.T.A. wants:

1) Statewide and state-funded program of fully-paid teacher leave for purposes of college and university training in critical curriculum areas, with individuals funded under this program required to commit three (3) years of post-training service to the public school system.

2) A program of state scholarships for currently employed teachers working on advanced college and university preparation in critical curriculum areas. Individuals funded under this program should be required to commit three (3) years of post-training service to the public school system.

3) State-funded, locally monitored summer programs of paid in-service training in critical curriculum areas. Enrollment in such training programs shall be voluntary.

4) A state-funded and organized program of teacher and industry exchange, allowing teachers on-the-scene experience in growth segments of the economy which have impact on relevant curriculum for the schools.

5) Mandated minimum training requirements for administrative personnel.

6) Mandated periodic teaching requirement for all personnel supervising or evaluating in grade level or subject areas of supervision or evaluation . . . and in teaching assignments outside established teacher/pupil ratios so that no teacher shall be displaced from a teaching position.

What do we want the Nation to do about the reduction of the number of administrative units in the governance of public education? These are some of the reforms that C.T.A. wants:

1) Financial incentives to encourage school district consolidation and unification.

2) Mandatory deadlines for school district reorganization to achieve K-12 unified school districts.

3) Mandated maximum for administrative and classroom teacher ratios with penalties against school board members who violate the mandates.

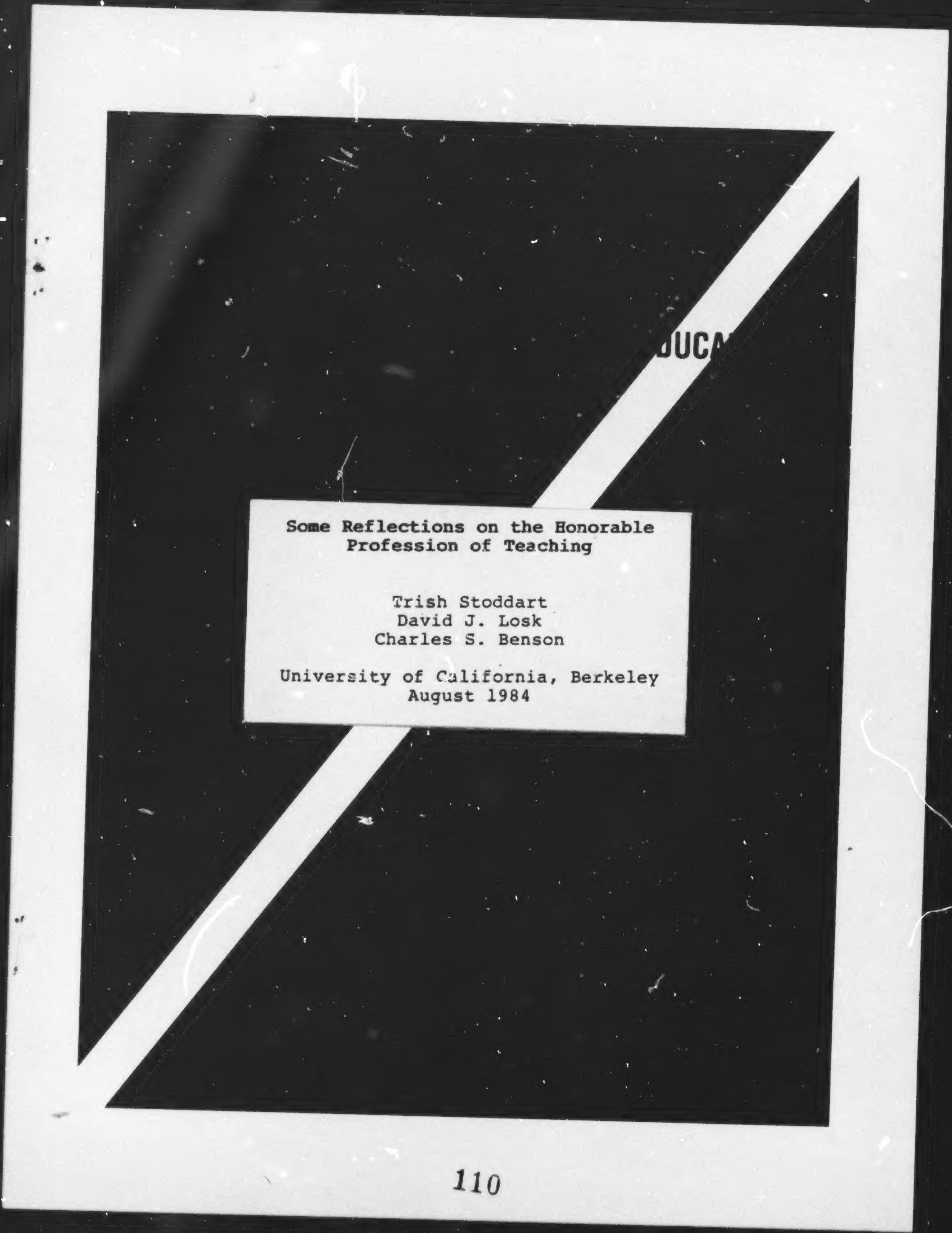
4) Institution of a study of the functions and efficiency of the State Department of Education with the goal of changing current policies and practices which act as inhibitors to the delivery of an effective educational system in the State of California.

Time limitations prevent me from mentioning all the elements of school reform for which C.T.A. is striving. Some have already been achieved through our legislative efforts. Others are on our political and legislative agenda.

We are hopeful that C.T.A. and N.E.A., and all other friends of public education, can move swiftly to reform our public schools during this period of rising public confidence in public education.

Thank you.

--E-N-D--



Some Reflections on the Honorable Profession of Teaching

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August 1984

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This is a PACE Project sponsored paper. PACE, Policy Analysis for California Education, is a joint undertaking located at the University of California, Berkeley and Stanford University. Its Directors are James W. Guthrie and Michael W. Kirst. PACE is funded by The William and Flora Hewlett Foundation. However, the analyses and recommendations contained in this paper are not necessarily endorsed either by the Hewlett Foundation or the PACE directors.

I. Introduction

During the past decade there has been an unprecedented decline in confidence in the California public schools.(Field, 1981) Public and politicians alike are concerned about declining test scores, increasing numbers of high school drop-outs, and semi-literate and -numerate students entering the universities and the work-force. A number of recent reports (National Commission on Excellence in Education, 1983; Boyer, 1982; Gallup Poll, 1982) indicate that both professionals and the lay public subscribe to the view that public schools should focus on improving academic standards. "Back to basics" and "No frills education" are the rallying cries of this movement. In fact, however, it will be difficult to take students back to basics when many teachers have not mastered the basics themselves. (Commission on Teacher Credentialing, 1983) How can an elementary school teacher who is unable to pass a test of basic skills in reading and arithmetic help students achieve high standards of literacy and numeracy?

The current system of training and certification does not adequately screen teacher candidates or offer them the opportunity to develop a high level of professional skill. The salary or career structure does not offer able individuals the incentive to take up classroom teaching as a long-term career. The fact that there *are* excellent teachers in California classrooms owes more to the personal dedication and altruism of such individuals than to the design of the education system.

During the next decade many of the state's most able and experienced teachers will retire (Smith, 1983b), and others will move into administration (Lortie, 1975) or other professions (Charters, 1970). There is an urgent need *at this time* to raise professional standards and improve career opportunities so that these positions are filled by highly qualified teachers. Teachers are the lynchpin of the education system; student learning depends on effective teaching. We are unlikely to observe a marked improvement in student attainment until we restructure the teaching profession to attract and retain the most able candidates.

A. Certification and Professional Standards

The state has not established rigorous standards to evaluate individuals seeking to enter the teaching profession. Under the "Approved Program" method of certification, *the state approves programs, not personnel.* The responsibility to approve teacher candidates has been delegated to the institutions of teacher training. The recent high failure rates among both experienced and student teachers on the California Basic Education Skills Test (CBEST), as published by the Commission on Teacher Credentialing (1982-1983), leads one to question the effectiveness of such institutions. Programs of teacher preparation are not highly selective in their intake (Brubaker, 1976; Watts, 1980) and student teachers tend to be among the least able of the university population (Impact, 1982). The programs themselves are not comparable in length or rigor to those of most recognized professions, student teachers spend less time in professional studies than any profession or semi-profession (Denemark and Nutter, 1979). Few students fail, and virtually all of those who graduate are recommended to the state for certification. Graduation from an accredited teacher preparation program in California is a virtual guarantee of certification.

This is not the case with other professions. For example, the state establishes rigorous standards for lawyers. In 1982 the state bar received over 12,300 written exams and granted acceptance to slightly more than 5,100, a pass rate of 41 percent. Compare this to the Commission on Teacher

Credentialing. In 1983 it reviewed a total of 114,000 applicants for teaching credentials and granted credentials to 97,000 individuals, an acceptance rate of 85 percent. These figures can be taken to reflect the different standards and procedures used by the state to approve these two groups of professionals. For lawyers, state licensing is independent of a law degree; an individual must have gained a law degree before applying for admission to the bar, but such a degree is not itself sufficient for admission. As the figures above demonstrate, being admitted to a particular law school and meeting its requirements are no guarantee that one will be able to practice law in California. The state sets its standards in the form of the bar exam.

The same is not true, unfortunately, of the teaching profession. In education, completing a teacher preparation program is more or less synonymous with gaining a teaching credential. Under the "Approved Program" route schools of education recommend their graduates for certification and the state simply rubber stamps them. These departments, always concerned about enrollment and constantly competing for students, are unlikely to inflict high failure rates on themselves. This hardly seems the most effective method of ensuring quality control in the profession. This paper argues that in order to improve the quality of new entrants into the teaching profession, the state should dispense with the "Approved Program" method of certification and establish independent professional standards for teachers.

B. Raising Salaries

Raising certification standards will enhance the prospect that better quality candidates will enter the teaching profession. It will not ensure that we retain good teachers in the classroom, however, unless we improve the reward structure of the profession. Declining confidence in the public schools has manifested itself in an unwillingness on the part of the tax-paying public to improve the pay and working conditions of teachers. Excellence often goes unrewarded and unrecognized. In recent years teachers' pay has declined relative to other professions (N.E.A., 1982). Entry-level teachers receive salaries that are among the lowest of any profession, and this is exacerbated by the fact that the salary structure is "front-loaded", each pay increase representing a smaller percentage of the salary base than the preceding increment. (Lortie, 1975) The relative rewards actually decrease with experience and, as James Guthrie points out, most teachers reach the top of their salary scale by age 35 (Guthrie, 1983). The only way to move up is to move out of the classroom into administration or evaluation. Senate Bill 813 --- referred to as the "education reform bill of 1983" and sponsored by California State Senator Gary Hart (no relation to the Senator from Colorado) and Representative Theresa Hughes --- has addressed the issue of entry-level salaries in California, by mandating a substantial increase (to $18,000 in three years). This increase, however, does not restore entry-level salaries to their 1960 position (Guthrie and Zusman, 1982). An increase in entry-level salaries may help attract better candidates, but they will not be retained unless remuneration throughout one's career is improved.

C. Improving Career Structure

Improving salaries, however, is not the total answer. As Kerr (1983) points out, even if teachers were uninterested in Salaries, the nature of teaching, as it is presently structured in the schools, would drive the best away. Teaching as a profession offers no incentives, in the form of increased responsibilities and commensurate status for those who want to perfect their abilities and excel in the craft of classroom teaching. She concludes, "The fact that some exceptionally able teachers appear and remain in classrooms reflects.... heroic commitment and extraordinary sacrifice.... and not the wisdom of our institutional arrangements".

In her testimony before the Assemble Education Interim Committee (1983), Anne Reynolds, Chancellor of the California State University, asserted that we must make the teaching profession more attractive in terms of salaries and career structure. "Real improvement in our schools will only occur when teaching as a profession is restructured and conceived so as to attract and retain persons with the ability and the motivation to be truly effective teachers and professional leaders in our society". She points out that the traditional incentives that once ensured an adequate supply of teachers are gone. Most conspicuous is the existence of alternative career opportunities for women and minorities, many of whom choose more remunerative careers in law, medicine or business. Teaching is no longer the "good job" that it once was. If we are to raise academic standards in California, we must make education an attractive profession once again.

Today, in California, we are at a critical juncture with respect to education. California is predicted to need between 90,000 to 190,000 additional teachers between 1984 and 1991 (Brott, 1984; Smith, 1983b). The state will have to replace a minimum of 50 percent and as many as 75 percent of the teaching force. ***Seventy-seven million**** students could pass through the classes of these new teachers. The state has an opportunity to ensure that all these children receive the best possible teaching. This paper offers recommendations as to how the State of California could improve the quality of teaching in its schools. We suggest changes in three main areas: certification, professional training, and career structure. These recommendations are discussed extensively below.

II. The Teacher's Role in Classroom Quality Control

A study commissioned by the California Commission for Teacher Credentialing, **Time to Learn** (Denham and Lieberman, 1980) came to the seemingly obvious conclusion that the amount of time students spend in learning activities determines their subsequent academic achievement. It is equally obvious that time is not the only factor. American students spend aproximately 13,000 hours in school, kindergarten through twelfth grade, and yet we have ample evidence to demonstrate that many of them are not learning efficiently. For example, American high school students lag behind those of many other countries in some areas: the average Japanese high school student is better at math than 99 percent of U.S. high school students. (National Commission on Excellence in Education, 1983) Currently in California 30 percent of students do not even graduate from high school (Education Report, January, 1984), and many of the top 40 percent who enter the universities require remedial education in basic skills. (California Postsecondary Education Commission, 1983)

A. Learning: Students' Presence and Involvement

The fact is, as Denham and Lieberman(1980) point out, learning does not require merely the students' physical presence in the classroom; it demands their active involvement in the learning task. John Dewey(1966) described learning as a problem solving process that involves a "genuine situation of experience.... involvement in an activity in which the child is genuinely interested". More recently the cognitive-developmental school of psychology

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*This figure was calculated by multiplying the maximum number of new teachers, 190,000 (as estimated by Smith, 1983b), by the current pupil-teacher ratio, 20.6, by 20 years of teaching experience.

(see for example, Piaget, 1970) has demonstrated that children do not perceive or understand the world in the same way as adults. Children gradually develop logical reasoning skills. For most school age children verbal explanation is not enough; they need to interact directly with the subject matter. The science and art of teaching involves presenting the learner with materials and subject matter in a way that he or she can comprehend and that stimulates and holds attention. The job of a teacher involves doing that for groups of 20-40 individuals day after day for years.

This paper argues that the most effective way to improve educational standards in California is to improve the *quality* of the time the students spend in school and that the most efficient way to do this is to improve the quality of the teaching profession and the conditions of work. The teacher is in charge of quality control in the classroom. *Teachers do make a difference.*

B. Teacher Behavior and Pupil Progress

Two recent studies, one of elementary schools (Denham and Lieberman, 1980) and one of high schools (Rutter, 1979), provide strong evidence that it is the classroom teacher who makes the difference in the amount of time students spend actively engaged in learning. Denham and Lieberman(1980) conclude that, student ability aside, the best predictor of student progress in reading and mathematics is the kind of instruction received. The students who make the most progress have teachers who emphasize academic goals, who accurately can assess students' level of skill and provide appropriate learning tasks, who monitor student work and give feedback, and who structure the lesson and give clear directions on task procedures.

Remarkably similar findings are reported in a study, conducted over a three year period, in 12 London high schools. (Rutter, 1979) The researchers had observed that schools admitting similar populations of students (socio-economic status, ethnic background, ability level) had significantly different levels of student academic achievement. The study specifically examined the differences between the high achieving and the low achieving schools. Differences in pupil progress were accounted for by differences observed in the behaviors of classroom teachers. Physical features of the school (size and age of buildings, facilities, etc.), or administrative aegis (public or private) made no significant difference to pupils academic performance. *What really mattered was what the teachers did.* The high achieving schools had teachers who stressed academic success and who expected their students to achieve. They spent time planning lessons and their classes were structured and well organized. They frequently assigned and checked homework.*

The findings of such studies lead us to argue that the way to improve the quality of learning taking place in California schools is to improve the skills of the individuals teaching in them and the conditions under which they work. This paper seeks to address the following issues; who are our teachers, how are they prepared and how can we ensure that we retain the best teachers in the classroom?

Rutter also found that school administrators played an important role in promoting student achievement. The high achieving schools were those where the school administrators were involved with teachers in planning the curriculum and in directly supervising teachers work. In these schools, for example, the administrators checked whether teachers assigned and marked homework regularly, and they were more directly involved in day to day classroom activities. Rutter comments; "It was striking that in the less successful schools teachers often were left completely alone to plan what to teach, with little guidance or supervision from their senior colleagues and little coordination with other teachers to ensure a coherent course from year to year". (p. 133)

III. Selecting Our Teachers

Measured by academic performance, the quality of candidates entering the teaching profession has declined. In the nineteenth century teachers' knowledge was expected to be encyclopaedic. For example, in 1897 the teachers exam in Yolo County, California, included sections on arithmetic, orthography, grammar, geography, reading, writing, literature, history, music, entomology, penmanship, physiology, physics, bookkeeping, United States Constitution, and geology. (Lane, 1972)

A. Decline in Teacher Quality

Today, relying on a liberal arts undergraduate education to provide the prospective teacher with the general educational background necessary to teach, we are embarrassed to acknowledge that approximately one-third of California's teachers are not literate or numerate (Commission on Teacher Credentialing, 1983). Instead of a population of highly literate, numerate and knowledgeable teachers, we have many teachers who cannot pass a test of basic skills in reading, writing and arithmetic (namely, the CBEST). Prospective teachers coming into the system do no better. The California State University system, which prepares 65 percent of teachers trained in the state (Morey 1983), found in 1983 that 40 percent of their student teachers could not pass the CBEST. Failure rates ranged from 67 percent at California State University Dominguez Hills to 19 percent at Humboldt State University. (Commission on Teacher Credentialing, 1983)

This situation is not confined to California, but is a national problem. As a group undergraduates aspiring to the teaching profession now rank at the bottom of the distributions of the A.C.T. and Graduate Record Examination (G.R.E.) scores. For the five years beginning in 1976 their G.R.E. scores plummeted from 39 to 65 points below the national average. (Kirst, 1981) Prospective teachers ranked 26th in a comparison of students of 29 fields of study, using combined (math and verbal) Scholastic Aptitude Test (S.A.T.) scores as the parameter. (Schwanke, 1982) In a comparison of the G.R.E. scores of college seniors in 14 fields of concentration, education students placed 13th in math and 12th in verbal ability. (Weaver, 1976) S.N.E.A. Impact gives the following summary:

> For more than half a century teacher education has attracted the least able students; lately the situation has reached crisis proportions. Between 1972 and 1980 the average verbal scores on the Scholastic Aptitude Test among entering education majors fell from 449 to 418. The S.A.T. scores of 1980 senior education majors were 48 points below the national average in mathematics and 35 points below average in verbal skills. .... If the median S.A.T. scores for all colleges and universities were used as entrance requirements for the nations schools of education 70 percent of the applicants would not be admitted.(quoted in Andrew, 1983)

This is shocking.

B. Approving Programs, Not Persons

Most states, including California, approve *programs* not persons, and issue certificates to those persons recommended by a preparatory institution. Ever since the "approved program" route was widely established as a means of quality control, teacher candidates became eligible for certification by graduating from a program that the Commission on Teacher Credentialing deemed as meeting minimum standards. In this system the state does not make judgments about individuals, the records they present, or the skills they possess. Instead judgments are rendered about the programs, and the programs are assigned the responsibility for making appropriate recomendations about individuals.

In other words the State of California delegates responsibility to the colleges and universities for approving the individuals admitted to the teaching profession. While a candidate might be considered less than qualified for a teaching position and still manage to pass all program requirements, rarely has such a person been denied certification.

The recent high failure rates of Californian teachers on the CBEST leads one to question the competence of the teacher preparation programs. It is hard for the public to understand how these institutions could have been recommending, for certification as teachers, individuals who were not literate or numerate.

C. Failure of the Gatekeepers

Teacher education programs in the United States traditionally have not played a significant role in preventing unqualified persons from becoming certified to teach, nor in recruiting desirable candidates into teacher education. Less than half the institutions surveyed nationwide by Lamon and Reeves (1982) had an active program of recruitment: they found few with excellent results. Watts (1980) and Brubaker (1976) observed that schools of education do not use rigorous admission criteria, generally admitting 90 percent of their applicants. Most of the teacher training programs across the nation (including the California State University system) use an undergraduate grade point average (G.P.A.), of 2.5 on a scale of 4.0 as the main academic criterion of admission. Such a criterion is no guarantee of academic adequacy. California State University Dominguez Hills, the California institution with the highest failure rate among its students on the CBEST (67 percent), uses a G.P.A of 2.5 as one of its admission criteria.

Once admitted to a teacher training program, few students fail; thus, the gate-keeping function is typically absent. Although the admission criteria are lower, the G.P.A of students in education are almost always higher than those of any other school on campus. This would imply that the intellectual rigor of education courses is reduced to the level of understanding of the less adept candidates. This condition alone would discourage the intellectually competent from seeking to become teachers or, should they persevere, from taking a full measure of pride in their profession. In a study of student teacher grades, in 34 institutions across 7 states, 79 percent of students given traditional letter grades received A and 18 percent received B (Southall, 1982).

It is not surprising then that Arizona State University found in 1978 that between 50-70 percent of the students they had admitted into the elementary school program had not mastered basic skills and concepts of arithmetic. The students could not correctly compute problems involving addition, division, fractions, decimals, and percentages. If a teacher does not know how to do long division, it is difficult to comprehend how that person may be able to teach long division to children. Indeed Arizona State, not surprisingly, found that lack of mastery in basic arithmetic has a negative effect on the teachers' ability to teach and attitudes toward teaching mathematics to children. They concluded (as any sensible person might) that students who have not mastered basic skills in arithmetic should not be allowed to teach in elementary schools.

Unfortunately, there is at present little to prevent such individuals from being admitted into teacher preparation programs. Recent legislation in California requires that students take the CBEST prior to admission to a teacher education program. They are not, however, required to *pass* it. Until 1983, in The California State University system, only 26 percent of the teacher preparation programs tested applicants before admission for reading skills and only 42 percent for mathematical skills. (Morey, 1983)

D. States' Role and Teachers' Academic Competence

Recently a number of state legislatures have enacted laws pertaining to teacher admission standards. For example, Georgia in 1980-81 distinguished between preparation and licensure (certification) by returning to the state the direct responsibility for determining who should receive a certificate. A candidate first completes an approved teacher education program, then must pass a test in order to receive an initial teaching certificate. Lester Sulaman, the state official responsible for the new certification process, reported that 20 percent of the graduates failed the first round of testing. "We prevented 800 teachers from walking through the door to teach children without knowing the subject matter," he stated. (Feister, et al, p.31)

Since February, 1983, anyone applying for a new credential to teach in a California school must pass the CBEST, which measures reading, writing, and mathematical skills. Currently 24 states either have or plan to use teacher tests. In ten states, passing such a test is a prerequisite for admission to a teacher preparation program; in two it is a prerequisite for admission to student teaching, and in ten it is required in order to be granted a teaching credential. (Brott, 1983)

Some states are going one step further and making teacher training institutions responsible for the performance of their graduates on tests of basic skills. In an education reform bill, currently before the Tennessee legislature, a teacher training institution would be placed on one year probation if 30 percent of its students failed a basic skills test. If the failure rate is above 30 percent for two or more consecutive years, the state will revoke the program's approval. In Florida, 18 out of the 25 teacher training institutions have lost state approval of one or more of their education programs under a law that holds them responsible for their students performance on a state test of basic skills (Education Week, July 27, 1983).

Teacher testing has been criticized because there is no substantive data to link a person's test performance to teaching competence (Lutz, 1983). But the lack of such a correlation is no reason to throw out competency testing. *Academic competence is a necessary condition of effective teaching, but it is not suffient to ensure effective teaching*. Few would argue that a teacher does not need to be literate, numerate, and well-versed in the subject matter. Academic competence is in fact a base-line requirement, but an effective teacher *also* needs a high level of professional skill. This cannot be measured solely by a paper and pencil test, but must be assessed in its own right. In short, teachers should be evaluated both on their level of academic competence and on their level of professional skill.

In California the provisions of the Ryan Act currently offer individuals the opportunity to separate the academic and the professional facets of teacher training. An individual may be granted a preliminary credential, authorizing service for five years, upon completion of a baccalaureate degree, appropriate subject matter preparation, and student teaching. A clear credential will be granted on completion of a fifth year of study at an approved college or university after completion of a baccalaureate degree. Typically, however, individuals preparing to teach complete little if any of their professional preparation during their undergraduate years. These individuals use the fifth year to complete the basic professional education coursework, including student teaching. Thus they proceed through the fifth year directly to the clear credential prior to their first teaching job. (Morey, 1983)

E. Exams for Teacher Candidates

This paper argues that a more effective way of preparing teachers would be to require examinations on general academic and subject matter competence before applicants are admitted to professional training. In other words this would mean that prospective teachers would have to complete their preparation in academic fields during their undergraduate years. In the *two* years following the awarding of the baccalaureate degree, teacher preparation programs would concentrate on professional preparation, that is, *how* to teach, not *what* to teach. Evaluation of the teacher candidate prior to the granting of a credential would focus on pedagogical knowledge and professional competence in the classroom.

There is support for the view that academic competence should be demonstrated prior to admission to a teacher preparation program and that professional competence should be demonstated prior to the awarding of a clear credential. The annual meeting of the American Association of Colleges of Teacher Education, held in Dallas in 1980, passed a resolution supporting a test of basic skills as a criterion for entry or continuance in teacher education programs and another supporting an assessment of professional skills as an exit requirement.

The comprehensive report **Excellence in Professional Education,** prepared by the Office of the Chancellor, the California State University system, (Morey, 1983) recommends that 1) students should demonstrate both general and subject matter competence before entry into a teacher preparation program; and 2) a clear credential should be issued only after a period of demonstrated competence as a teacher and completion of an advanced program of study. It was further recommended that the C.S.U. Schools of Education review their admission requirements for teacher preparation programs. The report recommends that students should demonstrate competency in a subject matter field and "college level proficiency in written and oral communication, mathematical computation and reasoning, and reading". It emphasizes that "completion of university-wide graduation requirements in these areas should not necessarily be assumed to be an adequate demonstration of competence for entry into professional education".

F. Entrance Requirements

It is common practice in other disciplines that students applying for graduate and professional programs must demonstrate competence in verbal, mathematical, and analytic skills, plus subject matter competence, by taking the G.R.E. It seems appropriate that a similar requirement be introduced for admission into teacher preparation programs. Thus applicants to teacher training programs would be evaluated on the same basis as applicants to other graduate programs in the university. Exams used exclusively for admission to schools of education imply status that is "special" and probably "inferior". Raising standards for entry into teacher preparation programs should be done in a way that allows direct comparison with other sections of the academic community.*

U.C. Davis requires students to have passed the CBEST prior to admission to the Teacher Education program. The Developmental Teacher Education Program at U.C., Berkeley requires candidates to have a minimum G.R.E score of 1,000 points.

There is concern that the introduction of mandatory entrance requirements for programs of teacher preparation will make it difficult for universities to attract sufficient numbers of candidates into these programs to satisfy current teacher needs. However, there is some evidence that the existence of testing programs might encourage more able students to apply and discourage less able candidates. **A Closer Look at Teacher Education** (N.E.A. Reporter, 1982) links the existence of a first-time- ever waiting list at the University of Oregon to that institution's raising of admission standards. Gallegos and Gibson (1982) suggest that an increase in the G.P.A. of teacher education students at Western Washington University As a result of self-selection following raised admission standards.

G. RECOMMENDATION ONE: Require Demonstration of Academic and Professional Competence

The first recommendation is that the State of California require prospective teachers to demonstrate both academic and professional sompetence before they are granted a teaching credential.

1) Academic competence in basic skills and subject matter should be demonstrated prior to admission to a fifth year professional training program.

2) Professional competence should be demonstrated before the state grants a clear credential. We recommend a two-stage credential: A temporary credential al, valid for three years, would be granted after the candidate has completed an approved training program and passed a pedagogical exam. A regular teacher credential would be granted after the successful completion of a one year supervized internship. These recommendations will be developed below.

Although there is a general move toward the use of competency tests for new teachers there is opposition to the testing of those currently employed. The American Federation of Teachers is opposed to such testing, reasoning that policies exist to remove from practise in-service teachers who are obviously deficient (Shanker and Ward, 1982). No states which have al ready adopted eacher testing laws subsume those already certified, and the proposed plan to do so in Houston Independent School Dsisrict occurs in a state where teachers do not have collective bargaining power (Education Week, 1982). One way to upgrade the skills of teachers currently enrolled is to link continuing education requirements to minimum competency requirements in basic skills and content areas and to tie those to merit increases.

IV. How Are Teachers Prepared?

A. Schools of Education

There has been little innovation in the preparation of teachers during the last 50 years. Drummond and Andrews (1980) compared current School of Education bulletins with those surveyed by E. S. Evendon between 1928-1933 and found that little has changed. They concluded that "except for a few innovative institutions, most prospective elementary school teachers still recapitulate the special methods programs of the normal school; secondary teacher candidates continue to be exposed to a pattern found in the universities circa 1930."

Two main reasons can be proposed for this lack of innovation in the training of teachers: it lies first in the failure of the schools of education to develop education as a substantive discipline; second (which may be a consequence of the first), the low status of schools of education in the university hierarchy. Schools of education have yet to develop a strong theoretical base and to identify a common core of knowledge and understanding that is basic to professional practice. They therefore have placed themselves in the ambiguous position, within the university community, of being viewed as neither a profession nor an academic discipline.

The university reward system works against clinical instruction. Universities essentially justify themselves by their contributions to accumulated knowledge and their preparation of those who wish to devote themselves to research. Naturally faculty members who prove themselves most adept at research and scholarly production garner the lion's share of recognition and financial reward. The system provides little incentive for faculty to engage in applied research or to develop innovative and experimental programs of teacher training.

There has been a tendency, therefore, to develop pedagogy as an academic rather than a clinical study. Except for student teaching (which is supervised and taught almost exclusively by public school teachers), pedagogical courses are taught by a combination of lectures and discussion, with the study of textbooks the primary learning activity. Faculty are committed to graduate study geared to erudition and ultimately to research competence, rather than to competence either in teaching or the training of teachers (Smith, 1982b).

The lack of emphasis on applied research and professional development has meant that education has not developed as a substantive discipline in its own right. There is little agreement on the content of the professional culture; consequently, there are major differences in objectives and programs among institutions:

> Even when course titles are similar, widespread differences often exist in the content, the intellectual level of instruction, and the competence required. This is true of both academic and professional courses. The result is that state requirements and teacher training institutions cannot really guarantee that teachers who have met state requirements have much training in common, know how to teach, or even know their subject.(Ornstein and Fuller, 1980)

Tenured faculty frequently are drawn from academic disciplines other than education, with no experience and limited interest in professional practice. The result is the creation of a mini-university within the larger university, given that departments of education employ doctorates in psychology (the most natural fit), sociology, political science, economics, anthropology, statistics, operations research, physics, computer programming, history, and philosophy.

But it is viewed as a renegade mini-university by the main line departments across campus. Faculties of education, holding responsibilities that are split between purely academic and purely professional spheres, find it hard to compete in either sphere successfully. Most of the applied teacher training is undertaken by lecturers or supervisors (non-tenured faculty) who have little say in the development of courses or program requirements.

Responsibility for the low standards in teacher preparation programs, however, should not devolve wholly onto schools of education. Donna Kerr (1983), after an extensive review of the teacher education literature, concludes that, "Teacher education takes place in what I call a hostile environment". Evidence to support this view can be found close to home, at the University of California, Berkeley, where the Smelser Report (1981) stated that the school of education at that institution had been subjected to a policy of "punitive starvation" by the university administration.

Judge (1982) and Sykes (1983) both point out that programs of teacher education serve a latent function within the university system which benefits other departments, but not themselves. They "serve as the dumping ground for the weakest students in the arts and sciences" (Kerr, 1983). Recent efforts to provide access to higher education for a greater proportion of the population has meant that public universities are required to admit a students of a wide range of ability. Any department that admits the least able students provides relief for other departments who oppose efforts to change this situation. Kerr found that "faculties in arts and sciences have been known to object to attempts by education faculties to raise their entrance requirements". As Sykes (1983) points out, teacher education has become an "intellectual ghetto" at many universities, "higher education's dirty little secret". He stresses that, under current circumstances, political and financial restraints prevent schools of education from changing readily.

The reputation of schools of education has become so debased that it has been proposed that teacher education be taken out of their hands. Critics such as Gene Lyons propose that the monopoly of tax-supported schools of education and their "empire of cant" be broken. He writes, "since teaching is a pragmatic art best learned by experience, school districts should establish apprenticeship programs for people who can satisfy the literacy requirements and show competence in subject matter" (Lyons, 1979). Such an option in teacher preparation, is now available in California under the provisions of Senate Bill 813. High schools may appoint as teacher trainees individuals who have not taken a fifth year of professional training. The individual to be appointed must pass basic skills and subject matter exams and the school district must provide a program of supervision from a mentor teacher (Guthrie, 1983).

Eliminating professional teacher training programs, because they are not currently satisfactory, may be viewed as 'throwing out the baby with the bath water'. If our goal is to upgrade our schools, then eliminating professional training (uneven as it may be at present) may produce worse consequences. There is evidence to indicate that the elimination of teacher preparation programs will only serve to perpetuate and institutionalize the problems in our schools. Hull, Baker, Kyle and Goad (1983) report that practical teaching experience, in isolation, may have negative effects in that it tends to socialize the student teacher into the prevailing school culture, rather than expanding their awareness of a range of teaching environments.

It is naive to expect that somebody can walk in off the street and deal effectively with the learning needs of twenty-plus complex individuals. Such a person may be able to stand at the front of a classroom and spew forth information, but it is unlikely that the students will learn much. As we have stressed earlier, learning requires more than the mere physical presence of a teacher and students. To develop understanding and learn efficiently children need to be actively engaged in academic tasks. The effective teacher designs lessons and presents instructional materials in ways that grasp and retain students' attention.

It is time that we took teaching seriously and acknowledged that it is a complex skill requiring full professional training. We would not allow unqualified individuals to build our bridges, fill our teeth or defend us in court. Are we seriously proposing that it takes less skill to educate children in order that they may, in the future, take up these and other professions? *Teachers do not need less training or no training at all, they need an extended and more rigorous training*. We must insist that schools of education focus their efforts on the improvement of pedagogy and the professional training of teachers. In recent years there have been significant advances in our understanding of the teaching/learning process. The challenge is to apply such knowledge to the professional development of teachers. Smith (1980a) summarizes the problem:

> While we do not know the cause(s) of learning, we do know the conditions of learning both in and outside of the classroom. The general outlines of human development have been discovered and we are beginning to learn the effects of some environmental factors upon human potentials. We know how to identify many obstacles to learning, particularly in reading and mathematics, and how to help learners cope with them. Our knowledge of exceptionality and how to provide for it is considerable and increasing. While our knowledge of social and emotional development is more fragile than our knowledge of cognitive development, still much progress has been made in the procedures and techniques of promoting effective growth in the classroom. *The problem of pedagogical education is not the lack of knowledge so much as the lack of will to institutionalize an effective program of pedagogical education*. (emphasis added)

B. The Link Between the Schools of Education and School Districts

During the 1960s a high priority was placed on pedagogical education. The link between schools and universities was strong, especially in math and the sciences. Unfortunately, the tie has since diminished, and is indeed weak today. As Gifford and Seaborg observe, faculties of education have tended to respond to the problem of "presumed congenital prestige deprivation" by distancing themselves from the problems experienced by teachers and administrators in the public schools(Gifford and Seaborg, 1983). This estrangement has added significantly to the problems of public schools in two senses: on the one hand the schools are deprived of valuable services provided by the researchers of the universities; on the other they receive the message that universities really have little to say about schools and teaching.

If we argue that the highest priority of schools of education should be pedagogical, that is, teaching teachers to teach, one of the most effective means of fulfilling that mission is to reforge the links between universities and schools by providing educational services to school personnel. Genuine partnerships should be reestablished for the purpose of school improvement; schools of education can and should lead a major analysis of educational problems, incorporation of research with instructional practice, and sponsoring continuing educational forums for practicing teachers and administrators.

Schools of education are in a unique position to facilitate the communication between teachers and university academic departments. Gifford (1983) argues that one of the major factors in the current shortage of qualified teachers is "the prospect every beginning science or mathematics teacher faces, of being cut off from new disciplinary developments and breakthroughs within a few years after entering classroom service". Those teachers who are genuinely concerned about becoming intellectually isolated from the latest subject matter may be those who are most likely to leave teaching after a relatively short time. These are the individuals who must be retained in the public schools.

Universities can contribute to resolving this problem through summer institutes on campus for practicing teachers. By coordinating with the academic departments on campus, especially in math and science, substantive courses could keep the teachers up-to-date on the latest body of knowledge and research. The same can be provided in other subject areas as well. However, let us caution that these courses not be designated as "science for teachers" or a similar rubric that conveys the idea of inferiority. The universities have the resources to provide substantive and academically rich continuous education for practicing teachers. To use these resources in a cooperative effort is to make a very direct contribution to the increased quality of instruction in the public schools.

C. **RECOMMENDATION TWO: The State of California should encourage a basic restructuring of schools of education**

The second recommendation is that the state encourage the restructuring of the schools of education in as fundamental a way as medical schools were restructured at the turn of the century, as a result of the Flexner Report. The primary mission of the restructured institutions should be the following:

i) instruction, including practical experience, in pedagogy;

ii) developing new knowledge about teaching/learning processes under programs of research that are both short and long-term; and

iii) taking a leadership role in the continuous education of practicing teachers by sponsoring summer institutes in collaboration with the relevant academic departments on campus.

Members of the education faculty whose professional interests are inconsistent with this mission should be shifted to other departments or units (for example, the faculty who work in administration and policy analysis should be grouped together with their peers from other professional schools serving the public sector, in a program of public sector management). New faculty should be hired to strengthen the primary mission, and promotional policies should be modified to give due credit for practical and effective work in improving local schools.

We recognize that some readers may find these recommendations unusual, especially in light of the criticisms we have made of departments of education as they exist today. We cannot emphasize too strongly that we are proposing an entirely different kind of institution that would be designed from the ground up to meet high standards of intellectual rigor. As we explain in the succeeding section, the complexity of teaching, so little recognized until now, requires the service of the best minds. Any other attempt to meet the "crisis in education" is patchwork that will not avail.

D. Professional Education

Teachers do not now receive a fully professional education, that is, such courses as theory, principles, and methods of teaching and learning, and their preparation is not comparable in length or rigor to that of most recognized professions. Teaching has less time allocated to strictly professional studies, the lowest proportion of credit hours allocated to the professional aspects of the program, of any profession or semi-profession. (Denemark and Nutter, 1979) In the bicentennial volume of the American Association of Colleges of Teacher Education (1976), it was concluded that nationally the professional education component makes up just 13 percent of a program for prospective secondary school teachers and only slightly more for elementary school teachers. Stinnet (1974) reported that ten states permitted the certification of elementary school teachers with only 18 semester units of professional education.

Kerr (1983) found that preparation for teaching at the elementary school level requires only "six or seven methods courses for reading, social studies, math, science, and art or music". Preparation for secondary school teaching covers "some sort of introduction to education, either educational psychology or sometimes adolescent psychology, a general methods course, and a subject-specific methods course in the student's specialty". About six weeks of student teaching completes the training. Kerr also found that while other professions had extended their period of training over the last 50 years to accommodate expanded knowledge, the proportion of teacher preparation devoted to professional studies had actually decreased.

California's current teacher credentialing statute, the Ryan Act, severely limits both the overall length of professional training and the amount of pedagogical preparation a student receives. As a consequence, student teachers enter the classroom with a *maximum* of nine units in professional education. On the average, fully credentialed teachers have devoted only 10 , oc theipercenf total academic preparation to pedagogical studies and an additional 10 percent to student teaching (Morey, 1983). "Excellence in Professional Education"(Morey, 1983) emphasizes that this is simply not enough. This same concern was also voiced by a number of California teacher-educators, in both public and private institutions, visited by the authors in late 1983.

A growing body of literature makes the case for extending the length of teacher preparation programs (Cogan, 1975; Denemark and Nutter, 1980; Stark, 1980; Gideonse, 1982). For example, Cogan argues for three full years of post-baccalaureate study, supervised teaching practice and supervised internship. In 1976, the A.A.C.T.E. Commission on Education for the Profession of Teaching called for five years of teacher preparation, including a bachelor's and master's degree, plus a sixth year of supervised internship. As we continue to discuss the content of professional training programs, it will become apparent why such programs need to be extended.

E. Content of Professional Education

Currently in California teacher preparation is based on the 'Competency Based Model'. This model assumes that teaching can be subdivided into a number of discrete professional behaviors, each of which must be mastered by students of teacher training programs, and that this basic set of skills can be applied in all teaching situations. This is an appealing assumptiond, for discrete skills can be taught quickly and cheaply, but it is also faulty. Discrete skills without knowledge of theory do not provide an adequate basis for the kind of complex decision-making required of teachers. For example, a lawyer needs to be a good questioner, but would hardly be considered professionally competent without a sound background in the law. Teaching relates to children, their learning processes and ways of facilitating their learning.

A study of the Educational Testing Service (E.T.S.) conducted in 43 California elementary schools demonstrated that the most effective teachers vary the method or style of teaching to fit both the characteristics of the student and the subject matter of the lesson (McDonald, 1975a). Teachers are constantly required to make instructional decisions that should evolve from a comprehensive understanding of children's cognitive and social development, principles of learning, and the application of such knowledge to teaching in a particular subject matter area. This involves not only a sound knowledge base, but also the development of a number of sophisticated clinical skills to enable the teacher to make the correct instructional decisions.

If our schools are to serve a diverse population, teachers need to be prepared comprehensively to accommodate the needs of children of all levels of ability, background and interests. Ammon (1982) points out that;

> Much of the instruction offered in today's schools does not deal effectively with the diversity of student needs found in most classrooms. Despite the lip service generally paid to such notions as developmental readiness and individual differences, the fact remains that many instructional programs assume that most students can learn the same things at the same time through the same method of instruction, with the consequence that *many students are expected to attain inappropiate objectives, or to learn from inappropriate methods*. Teacher training programs do not prepare teachers to fit instructional techniques to their students' needs. The teacher not only needs to be able to assess the learning status of students, but also to have understanding of the demands a particular instructional activity will make on the learner, along with ways of assessing the learner's current ability to meet such demands". (emphasis added)

Evidence to suport Ammon's view can be found in the literature on effective teaching (American Educational Research Association Symposium on Research in Teacher Education, 1971; Gideonse, 1982; Haisley, Gilberts and Kehl, 1983; Lakin and Reynolds, 1983). Such studies agree that effective teaching relies on the teachers knowledge and understanding of developing individuals and the ability to translate such knowledge into appropriate instructional activities. A common core of teacher characteristics have been found to be related to improved student achievement. Among these are:

The teacher accurately diagnoses students' level of skill and prescribes appropriate learning tasks.

The teacher varies instructional style and methods to match the characteristics of the learner and the characteristics of the subject matter.

The teacher monitors student progress and gives feedback.

The teacher structures the lesson and gives clear instructions on task procedures.

F. Psychological Theory and Educational Practice

Psychology has now reached the stage where knowledge about development and learning can begin to form the basis for pedagogy. The "cognitive revolution" has demonstrated that the way individuals process new information and the methods they employ to learn depend on characteristic ways of knowing. These are related both to developmental status and to the individual characteristics of the learner. A large body of evidence (for example: Bruner, 1966; Case, 1978; Piaget, 1970) demonstrates that there are developmental changes in the way individuals understand the world. These changes extend from infancy through adulthood. All teachers, K-12th grade, need to understand the course of such developmental and individual differences if they are to teach effectively; since there is always variability within a given age group, the teacher needs to be able to assess the needs of individuals and teach accordingly.*

The primary task of the teacher is to bridge the gap between the world of the child and the world of the adult. Children and adolescents are not just less experienced versions of the adult end product; they are different in kind. Children do not view or experience the world in the same way as adults, the most significant difference lies in the nature of their understanding. As children develop, their ability to reason develops also. Each level of reasoning represents a different organization of experience, information and knowledge, and each leads in turn to a different view of the world (Piaget, 1970). Children will transform what is taught to them in a way that fits their rules for making sense of the world. The effective teacher is able to view what happens in the classroom through the eyes of the child and design instruction that will be interpreted appropriately and meaningfully by each student in the class.

It is important for teachers to understand the methods children employ to learn about their world. Children are empiricists; they develop understanding by conducting their own experiments. Piaget (1970) has emphasized the importance of what children learn by their own actions over what they are taught: "Each time one prematurely teaches a child something he could have dicovered for himself, the child is kept from inventing it and consequently from understanding it completely" (p.715). This is true for students of all ages, but the type of experimentation used will depend the individual's level of cognitive development.

G. Developing a Science of Instruction

A science of instruction requires the integration of knowledge about learning and development with an understanding of the characteristics and demands of specific subject matter areas. For example, to develop effective teaching programs in mathematics, knowledge needs to drawn from *both* psychology and mathematics. The mathematician establishes the subject matter and the psychologist brings to the venture the knowledge of how children develop an understanding of mathematical concepts. Knowledge of psychology or of subject matter, each in isolation, is not sufficient. A sophisticated integration of knowledge from both fields is necessary.

We are not suggesting that a fully elaborated set of pedagogical practices has been developed, but that there is a body of knowledge from which it can soon be developed. The task is to identify and integrate those concepts that can be systematically linked to the teaching/learning process and begin to develop a science of instruction. This will require a much stonger emphasis on applied research than is currently in vogue and will rely on the reform of the schools of education along the lines we described earlier. In a reciprocal interaction, theory can inform practice and practice can inform and modify theory. This will require the development of a much closer relationship between the University researcher and the classroom teacher.

Below we give an example of how cognitive developmental theory can be used to inform practice. Other bodies of theory can be systematically applied and extended in a similar way. The Developmental Teacher Education

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Small class size and optimal teaching conditions will facilitate this.

Program*, based at the University of California, Berkeley, emphasizes the systematic study of cognitive development as a basis of teaching in the training of elementary school teachers. (Ammon, 1982) In the first year of the program students focus on understanding the processes of children's cognitive development; in the second year this knowledge is applied to the teaching of specific subject matter areas, mathematics, reading and language, science, and social studies.

Cognitive developmental theory has also been widely used in the development of curriculum. The Nuffield Mathematics program in England (e.g., 1967; 1970; 1972) provides teachers with both conceptual principles (based on an understanding of children's cognitive development) and concrete examples from which to generate a series of mathematics activities from elementary through high school. The Science Curriculum Improvement program based at the Lawrence Hall of Science, University of California, Berkeley, (Karplus and Thier, 1967) has developed a number of study units for use in elementary schools.

By systematically applying a body of theory in the training of teachers and in the development of curriculum, we can begin to develop a pedagogy that is testable. Theory used to inform instruction must pass the test of classroom practice.

H. Cognitive Development and Education

Beginning in the 1940s and continuing to the present a large body of research, stimulated by the work of Jean Piaget, (see, for example, Piaget, 1970) has investigated the development of intellectual and scientific concepts in children (e.g. space, time, number, geometry). This research has demonstrated that the most significant intellectual differences between children and adults lies in the nature of their understanding. As children develop, their level of conceptual understanding develops also. Each level represents a different organization of experience, information, and knowledge, and each leads to a very different view of the world.

Until about age seven the child's reasoning is dominated by immediate perception; if the appearance of an object changes, then in the child's view the object has changed as well. Hence the tendency of the young child to take the evidence of his or her own eyes over the logical explanation offered by the teacher. Children begin to develop an understanding of the properties and limitations of objects by actively manipulating them and observing the consequences. For example, in order to understand the concept of "six", the young child needs to sort, handle, and otherwise manipulate different groups of objects representing "six", and learn that "six" is not an object in itself, but a term which describes a particular set of class and order relationships.

In middle childhood, children develop mental operations which allow flexible thinking. Thought is no longer tied to immediate perception because children are developing logical structures and a system of rules that allow them to go beyond the immediate stimulus and perform mental operations. During this period children begin to construct stable hierarchies of classes and relations, to conserve quantity and number, and to reason about some aspects of space, time and causality. Although such thought processes show a new logical-mathematical sophistication, the child is still bound by concrete reality:

The Developmental Teacher Education Program is an experimental teacher training program which also incorporates a systematic program of research into the development of teachers.

he or she is unable to reason about events that do not actually occur. This has important implications from middle school onwards, where lessons often taught by the lecture/text book method with little use of direct experience. To develop understanding it is important to link subject matter to some facet of the individual's experience. Cowan (1978) discusses the problem:

> I despair when I see teachers expecting children to comprehend history and geography lessons about other people who live at different times or places, who exist within different social, geographical, or political contexts. Even at the early concrete operational stage children are having difficulty with space and time concepts. Their fundamental egocentricism makes it difficult for them to understand that people lived in different historical periods, under different conditions. (p.241)

He suggests that the way to overcome these problems is to start by asking children to trace their own history and the history of their families before other people and events are studied. This approach to history promotes movement from action to contemplation, from present to past, and from personal to general. Students are engaging in operations concerning time-sequencing, causal explanations, perspective-taking, communication and so on. They are developing problem-solving skills, which they can generalize to other situations. Such teaching encourages children to use their own powers of reasoning in learning. In contrast to this, the lecture/textbook approach relies on rote-learning and memorization; it pays little attention to the student's own ability to reason and does not develop the student's ability to think independently.

Beginning at about 12 years of age, the capacity to reason begins to mature. Such development represents the beginnings of truly scientific thought, in the form of hypothesis testing. The cognitive processes become "formalized," in the sense that they become detatched from the concrete material in which they originate. In this stage the individual begins to deal with second-order operations, i.e., to deal not only with the events of the real world but with all possible events. Many high school teachers assume that students are already capable of abstraction and can deal with material presented in the form of abstact concepts, for example, a lecture on algebra or taxonomy in biology. Unfortunately, only about one-third of the high school population have achieved formal operations (Cowan, 1978). Consequently, much of what is said goes over the heads of the majority of students. This fact alone may explain why so many high school students have difficulty with science and mathematics; most still need to interact more directly with the subject matter. Biology, for example, frequently requires the students to memorize the taxonomy and classification of organisms. Students will learn and understand this subject matter more effectively if they observe and collect organisms in their natural habitats, and then sort them into subsets. If allowed, they will invent their own system of taxonomy and in the process will make discoveries about the nature of taxonomic methods. Renner and Stafford (1972) stress that the "inquiry and discovery" method of teaching must go beyond the discovery of answers that the teacher knew at the beginning of the lesson.

In the taxonomy example the goal is not to recreate the classification scheme for traditional biology, but rather to construct a scheme for organizing scientific observations. These and other researchers have shown that significant gains can be made in the scientific understanding of junior high and high school students if concepts are presented at the concrete level. In laboratory experiments not always involving extensive equipment, students learned to collect data, discuss ideas, and test hypotheses. Textbooks have been found to be minimally useful and direct manipulation of materials maximally useful in helping students arrive at their own understanding of the scientific discipline and the concepts within it. No matter what their level of sophistication, new subject matter probably will be learned better by the majority of students if they are given the opportunity to manipulate concrete examples and models and to operate mentally on the material to be learned (Cowan, 1978).

I. Applying Theoretical Knowledge to Practice

The work of the teacher is made even more complex by the fact that students in any one class will manifest both developmental and individual differences. In order to be effective, the teacher not only must understand the processes of child development and learning, but also be able to translate this knowledge into instruction that meets the needs of each individual in the group. The development of such knowledge and the skill to apply it takes time. The Developmental Teacher Education Program has found that this process takes at least two years (Ammon, 1982).

In the Developmental Teacher Education Program, the first year is devoted to developing student teachers' understanding of child development, and the second year to helping them apply this knowledge to classroom instruction in specific subject matter areas. After reviewing over 200 studies on teacher preparation, Joyce and Showers (1983) conclude that all the following steps are necessary for the succesful transfer of training to classroom practice: study of theory, observation and demonstration, and teaching practice with feedback and coaching. Educating student teachers to the level where they can begin to be effective in the classroom takes time and requires extensive training and supervision.

J. RECOMMENDATION THREE: Teacher Preparation and Certification Should be Restructured

The third recommendation is that programs of teacher preparation and the process of certification should be restructured:

i) Programs of teacher preparation should be lengthened to allow time for the development of a thorough understanding of the interaction of children's learning and development with the characteristics and demands of specific subject matter areas, and the development of skills to apply this understanding to classroom instruction. We recommend two years of post-baccalaureate study culminating in a masters degree. By the end of a program of teacher preparation student teachers should have developed the following and demonstrate that they can apply it to classroom instruction:

Knowledge and understanding of:

child development and learning;*

the characteristics and demands of specific subject matter areas;*

the relationship between specific subject matter content and the development of children's thinking;

The preparation of elementary and high school teachers would differ. Elementary school teachers would focus on learning and development in individuals four through thirteen years, in a range of subject matter areas including reading, writing, mathematics, and science. High school teachers would focus on learning and development, in individuals nine through twenty years of age, in two complimentary subject matter areas such as mathematics and a physical science.

the relationship between the diverse characteristics of learners and different instructional strategies;

the characteristics specific subject matter areas and the different methods and styles of presentation; and

the demonstrated ability to apply such knowledge to classroom instruction.

ii) An adequate provision of fellowships and forgiveable loans should be made to attract able students to enroll in these extended programs.

iii) The decision to grant an initial teaching credential should be taken out of the hands of the schools of education and returned to the state. In order to be granted a provisional teaching credential, an individual would be required to complete a program of teacher preparation and pass a professional teachers' exam established and administered by a state body created for this purpose. The following section addresses this issue.

K. Professional Teachers' Exam

Assuming that the concept of a professional evaluation for teachers is both feasible and acceptable, what form would it take? There is much of value to be gleaned from examining the practices of other professions. Medicine requires evaluation both of the knowledge of medicine as an academic study and of the clinical skills used skills in applying that knowledge. The former is tested throughout medical school and also by the state when the applicant seeks a license to practice medicine; the latter by a professional practicum, which is evaluated during the first three years of graduate experience, during internship and residency. Having passed all of these hurdles successfully, the young physician obtains a license to practice and proceeds to hang out his/her shingle. The legal profession requires a written test, the bar exam, as a measure of professional competence. The current bar exam contains six essay questions, each of which is read and scored by a different reader, and a multiple choice section. The exam is scored by practicing lawyers who passed the bar on their first attempt with high scores and are selected on the basis of their experience in the legal profession. They are paid approximately $1700 per examination. This fee covers writing a legal analysis of an assigned question, attendance at three "calibration" meetings (to ensure standardization of scoring among all readers), and a set remuneration for each question book graded. (Smith, 1983a) The cost of this process is subsidized by applicant fees, which range from $263 for a recent California graduate taking the exam for the first time to $415 for practicing attorneys from out of state.

We propose that the state institute a professional teachers' exam modeled on the state bar exam. Candidates would be required to achieve a passing grade, after completing formal professional training, in order to receive a provisional teaching credential. The exam would test candidates' knowledge of the theory and practice of the teaching/learning process. Four main content areas would be covered: child development, theories of teaching/learning, the relevant application of a variety of instructional methods in the context of specific subject matter areas(with obvious differences for elementary and high school levels), and curriculum development. The exam would consist of six essay questions based on real-life school situations, in which the candidate would be required to make and justify instructional decisions.

The test would be read and evaluated by a cadre of mentor teachers, invited to join a special commission established for this purpose and selected for their experience and expertise as instructors and educators. At least three mentor teachers would read any given test and score it independently; the composite score would determine whether or not the candidate is recommended to the state for certification as a teacher. The recommendation would come from the mentor teachers who read the exams, not from the teacher training institution that prepares the prospective teacher. Reading of the written exams would be undertaken during the school summer vacation thus, providing professionally related summer employment for the selected group. By involving mentor teachers in the process of teacher certification, we will give the teaching profession what other professions have achieved: the responsibility and privilege of governing their own ranks.

L. The Transition Into Teaching

Under current teacher preparation in California, pedagogical training is considered complete at the end of a one-year program. At that time the student-teacher is considered to be fully qualified and capable of handling the diverse responsibilities of classroom instruction. Once again teaching is out of step: no other profession allows novices to accept so much responsibility without more practice and on-the-job supervision. No other profession expects beginners to work at the same tasks and at the same level as their more experienced colleagues (Hunt, 1968). Most professions, e.g., medicine, social work, and clinical psychology, require that new entrants undergo a period of supervised internship after graduating from a professional training program. An airline pilot flies as co-pilot for a number of years under the supervision of a senior pilot, before being given command of an aircraft. Teaching is no less demanding than any of these other professions and does not require less training and supervision to achieve excellence.

We cannot emphasize enough the complexity of the job of teaching. It may take a teacher several years to develop the skills needed to deal on a daily basis with the learning and social needs of a group of developing individuals. Even a relatively homogenous group of children exhibit a wide range in ability and developmental status. Over a full year an individual's skills and abilities can also change rapidly. As we have discussed above, the effective teacher gears instruction to meet the needs of all the students in the group. This requires that the teacher know each individual student, be able to assess his/her learning status, and prescribe appropriate learning tasks. In addition to this, the beginning teacher has to organize the classroom, manage student behavior, and interact with school administrators and parents. No wonder most new teachers go through their first weeks in teaching in a state closely approaching panic (Lortie, 1975).

The problems new teachers encounter are comprehensively documented in a report of the Educational Testing Service (Elias and McDonald, 1982). The fears of beginning teachers revolve around facing a class, their job performance and a sense of isolation. Many new teachers report feeling inadequate to the task of teaching. Working in relative isolation, as teachers do, exacerbates the situation. Most new teachers are reluctant to seek assistance because they feel that to do so would be an admission of incompetence. Being alone with their students for the major portion of the day, they must rely on their own judgment for measuring the quality of their work. E.T.S. found that, unless a structure is established within the school whereby an experienced teacher is assigned to assist the new teacher, little help is forthcoming. The report concludes that intensive supervision within the first difficult months of teaching is the best way to integrate new teachers smoothly into the job.

The University of Oregon, Resident Teacher Masters Program (Haisley, Gilberts, and Kehl, 1983) provides newly-qualified teachers with a full year of intensive supervision and support from a "Curriculum Associate" (an experienced teacher) in the same school. The Curriculum Associate helps the novice to plan the curriculum and develop lessons, organize the classroom, monitor and evaluate student learning, and generally is available to assist with any and all problems associated with the classroom. The Curriculum Associate also observes and evaluates the novice teacher and gives feedback and coaching. This program has been effective. In fact, 75 percent of the Resident Teachers were appointed to permanent teaching positions in the districts in which they interned. The results of an independent follow-up study indicate that at the end of three years of teaching, the teacher interns were more competent in diagnosis, planning and instruction than a similar group who had not gone through a supervised internship (Kehl, 1981). A similar program at the University of New Hampshire has reported that 90 percent of its graduates have teaching positions. There are also fewer dropouts from teaching among this group, in contrast to the high dropout rate that is reported throughout the rest of the country (Haisley, Gilberts and Kehl, 1983).

M. Supervised Internship

Georgia, South Carolina, Oklahoma and Florida have implemented supervision programs for beginning teachers.* In all four states a provisional teaching certificate is issued on the basis of three prerequisites: 1) a baccalaureate degree; 2) completion of a teacher training program; 3) passing grades on a state administered test of basic skills and professional knowledge. Full certification is issued upon the recommendation of a professional team that observes the beginning teacher during the first year(s) of teaching. At the end of the first year committee members decide to certify, *not* to certify, or to recommend that the teacher complete a second year in the supervised program. In each state, educators at every level were involved in the design of their state's entry-year program. The state prescribes a common design, and the school districts administer the entry-assistance program for beginning teachers.

The beginning teacher is assigned a support team of three. The team in South Carolina is composed of three specially trained trained district representatives.s0 In other states the team includes the school principal or other administrator, a teacher experienced at the grade level or in the subject area of the beginning teacher, and a third person. This may be a Regional Assessment Center representative in Georgia, a district coordinator or supervisor or other person at the same level in Florida, and a teacher educator from a nearby institution of education in Oklahoma. Team members typically observe the beginning teacher a minimum of three times a year, using a "generic" teaching skills list prepared by professionals, including teacher educators, in the state. In conference with the beginning teacher, team members specify areas of deficiency and write professional development plans. If the development plan prescribes areas that need improvement, the teacher receives help from a regional representative, a consultant, a peer teacher, or a district training program.

The following description of these programs is taken from a planning document on teacher preperation programs prepared by the University of Oregon, College of Education (Haisley, Gilberts, and Kehl, 1983).

N. RECOMMENDATION FOUR: A California State Teaching Internship Program

The fourth recommendation is that the State of California establish a teaching-intern supervision program along similar lines to those described above. We offer the following suggestions:

i) Beginning teachers need intensive support and feedback in the early weeks and months of teaching. We recommend that beginning teachers be assigned a mentor teacher, preferably in the same school, who would give daily or weekly supervision. The mentor teacher would be given release time for such supervision, as per SB 813.

ii) Cooperation between university and school district personnel is imperative for introducing beginning teachers into the system effectively. Any internship model developed in California should be based on a collaboration between the school districts and the schools of education. We see the relationship as reciprocal. School District personnel would be appointed as clinical professors in schools of education (in a joint appointment between the school district and university) to organize the internship program and collaborate with university faculty on organizing problem-focused seminars for the beginning teachers. The schools of education, in turn, would train the mentor teachers in supervisory skills.

iii) The evaluation team would consist of the supervising mentor teacher, a school district administrator and a school of education faculty member.

V. Retaining Good Teachers in the Classroom

We have argued that raising certification standards will improve the quality of new candidates entering the teaching profession. However we will not retain such individuals unless teaching is made more attractive as a long-term career. Teaching has a high turn-over rate: only 40 percent of new teachers remain in the profession after their fifth year. (Charters, 1970) Even more worrisome is the fact that many of the most academically able teachers tend to leave. Those who score high in mathematical reasoning are particularly likely to reject the teaching profession. This pattern tends to hold regardless of the race or sex of teachers. (Shlechty and Vance, 1982)

These figures are not surprising: teaching is no longer a desirable profession. In the last ten years public school teaching has suffered a greater loss of prestige than any other profession. (N.E.A., 1981) Parents no longer encourage their children to enter teaching (Gallup, 1982); enrollments in programs of teacher preparation have declined (Sykes, 1983); and more than 40 percent of those currently employed as teachers say they would no longer choose to enter the profession. (N.E.A. Reporter, 1982) In addition teaching is losing the best and brightest of the women and minorities, who used to be the profession's mainstay, now that other careers are open to these groups. In a 1979 Harris Poll, teaching finished last among a choice of occupations as a field in which to achieve security and make money. The factors that have contributed to this situation have been adequately documented elsewhere. (see, for example, Lortie, 1975; Smith, 1983b). This section addresses what appear to be the most pressing and immediate issues.

A. Salaries

Teachers' salaries do not compare favorably with those of other professions. In California the average teacher earns approximately $22,755 per annum, 25 percent less than a social worker and 40 percent less than an engineer. (N.E.A. Reporter, 1982) Until the recent salary increase mandated in Senate Bill 813, the average starting salary for a California public school teacher was $13,000. An individual with an undergraduate math or science major* entering industry is likely to be offered a starting salary of $20,000, and with a Masters degree in engineering or an M.B.A. a person could expect as high as $25-30,000 (Guthrie and Zusman, 1982). In three years time entry-level salary for California teachers will be $18,000, but this will not restore them to their more favorable 1970 position (Guthrie, 1983). Teachers' salaries have declined 12 percent in real purchasing power between 1971-1980, and the decline appears to be continuing and accelerating (Guthrie and Zusman, 1982). Worse still, the salary structure offers no incentive to stay in teaching.

As Lortie (1975) points out, teacher income structures are "front-loaded", entry-level salaries being high in relation to the long-term financial rewards of teaching. Over the years each pay increase represents a smaller percentage of the base salary. *The rewards actually decrease with experience.* Most teachers have reached the top of the salary scale by age 35 (Guthrie, 1983). Smith (1983b) points out "For approximately 63% of California's teachers who have more than ten years of educational service there is no opportunity for salary growth, other than inflationary increases and periodic tenure bonuses provided by a limited number of school districts, unless they leave the profession or go into school administration. After ten years of moving up many of them move out" (Smith, 1983b).

There is a severe shortage of math and science teachers in California. Los Angeles Unified School District alone needed 600 math teachers in 1983 (Guthrie and Zusman, 1982). 50 percent of math classes in high schools in California, and 72 percent in junior high schools,

B. Career Structure

Teaching lack an adequate career structure. In terms of classroom activities and responsibilities, the 20-year veteran is indistinguishable from the raw recruit. Talented young teachers look ahead and see relatively little opportunity for long term professional development. Teaching is one of the few professions that does not allow for change in the type of work activities as a function of experience. There is little in the system which gives the teacher a sense of advancement or moving up. The door to advancement is marked "EXIT" for the classroom teacher.

The way to become a professional leader is to become an administrator. Classroom teachers, regardless of experience, feel they have little influence or control outside of their classrooms (Lightfoot, 1983), and in fact are generally excluded from the decision making processes of the school (Griffiths, 1983). Indeed, in recent years there have been increasing attempts to take control away from the teacher within the classroom. As Sykes (1983) points out the tendency toward "legislated learning" has brought into use "tests to insure teacher accountability, the development of 'teacher-proof' curriculum, instructional management systems, competency-based teacher education, management by objectives, and the like", all of which serve to erode teachers' view of themselves as competent professionals.

To add insult to injury, in recent years, teachers have not even had job security. It is common practice in California for school districts to send layoff notices to large numbers of teachers on May 15th. Many are rescinded by the end of August, but even so teachers, with families to support and heavy financial commitment, spend their summer vacation worrying about whether or not they will have a job the following year. It also means that, in many instances, teachers are not given new job assignments until the new school year has begun and have no time to prepare for them.

Given these facts, it is surprising that we have any teachers at all. Fortunately many individuals are still attracted to the profession for altruistic and idealistic reasons. Most are motivated by the desire to work with young people, a genuine interest in the subject matter, and the opportunity to make a significant contribution to society (Smith, 1983b). By offering such individuals a satisfying and rewarding professional career, we will not only attract able candidates, but will retain them in the classroom. In order to do this, however, we need to restructure both salaries and career advancement opportunities.

C. RECOMMENDATION FIVE: A System of Salary Increases and Career Advancement

The state should develop a system of interrelated salary increases and career advancement levels that rewards both excellence and experience, and that retains the most able teachers in the classroom. To demand greater rigor in professional preparation in the absence of such career enhancement will blunt the drive for teacher competence. Today there is an increasing public

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are taught by teachers with less than a minor in mathematics (California Science Teachers Association, 1982, cited in Gifford and Seaborg, 1983). This situation is unlikely to improve in the near future. Guthrie and Zusman (1982) report that in 1982 the total number of students, enrolled in math and science teacher preparation programs in California, was 371. In that same year, they estimate, 2,200 math or science teachers resigned from California schools. In 1981 over 50 percent of math and science graduates who were qualified to teach chose to go into industry instead (Institute for School Development, 1983). As Guthrie and Zusman point out, the salaries and career opportunities offered to math and science graduates in teaching cannot match those offered by industry.

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awareness that the education profession needs revitalization, along with the willingness to make the necessary financial investment to begin the process. The following will provide a guide to our suggestions:

i) **Teacher Salaries**: the improvement of teacher salaries mandated in Senate Bill 813 should be strengthened and improved annually up to levels at which neither talented entry-level candidates nor experienced teachers are driven to seek other kinds of work solely for financial reasons.

ii) **Career Structure**: a structure of career advancement for classroom teachers should be established, based on the academic or civil service models. Progress should be based on qualifications, experience, and excellence in teaching. Each level would have its own salary increment and professional development requirements, but additional salary raises and increased professional responsibilities and privileges would depend on promotion to the next higher level.

We suggest four levels or grades of teacher: intern, teacher, specialist teacher and mentor teacher. The career structure should be diversified to allow the able and experienced classroom teacher to play a more influential role in the profession.

a) **Intern**: The nature of this position is described above. Internships bring the preparation and development of the teacher's skills into the context of the work place. Upon successful completion of the internship, a clear teaching credential is awarded.

b) **Teacher**: This is the first fully certificated stage of a teacher's career. Persons are expected to accumulate experience at this level, eventually mastering both the theoretical and applied aspects of teaching. Teachers are responsible for the day-to-day conduct of classroom activities, aside from specialized types of instruction.

The next two promotional categories are designed to encourage experienced teachers to remain in the classroom, to use their skills to improve instruction and to act as professional leaders.

c) **Specialist teacher**: the specialist teacher would be based in a school and play a leadership role in the instruction of designated subject matter areas. Specialist teachers would act as change agents and initiate program improvement from within the school. They would be appointed in subject matter areas, such as math, science, or writing, and would assist teachers to upgrade instruction in these areas. In addition to some teaching responsibilities, he or she would work with individual teachers in the planning and teaching of lessons, act as a resource person in the upgrading of new knowledge and developments, and serve as a liaison between relevant outside agencies, such as academic departments in universities, museums, and governmental agencies. To be appointed a specialist teacher, an individual should have demonstrated superior classroom teaching skills and have successfully completed an appropriate advanced degree.

There is a great need for math specialists in both elementary and high schools. (Gifford and Seaborg, 1983) Currently, no California university offers an advanced specialist credential in the teaching of math. Upgrading the teaching of math requires that math specialist credential programs be instituted and the graduates thereof be appointed to math specialist teacher positions in elementary and high schools.

d) **Mentor Teachers**: The mentor teacher provisions of Senate Bill 813 should be expanded to make "mentor teacher" a promotional category. Mentor teachers should be identified as professional leaders who would be involved in both preservice and in-service teacher education and in monitoring professional standards. We envision mentor teachers being closely involved in the teacher credentialing process: they would score the professional teachers exam, would serve as supervising teachers for the internship requirement prior to certification, and would be part of the state evaluation team which would assess the intern and recommend whether or not the candidate should be granted a clear credential. Mentor teachers should be closely involved with programs of teacher preparation. We suggest that the most outstanding mentor teachers be offered short-term (e.g., three years) appointments as clinical professors in schools of education. Such appointments would be jointly funded by the university and the school district.

BIBLIOGRAPHY

American Educational Research Association, *Research in Teacher Education: A Symposium*. B. Othanel Smith(ed.), Prentice-Hall, Englewood Cliffs, N.J., 1971.

Ammon, Paul, *Developmental Teacher Education Program*. Report prepared for the Commission on Teacher Credentialing, Sacramento, 1982.

Andrew, M.D.,"The Characteristics of Students in a Five Year Teacher Education Program." *Journal of Teacher Education*, (34), January-February, 1983.

Boyer, Ernest L., *High School: A Report on Secondary Education in America*, Harper and Row, New York, 1983.

Brott, Ralph, *Teacher Testing*, unpublished report, University of California, Berkeley, 1983.

Brubaker, H.A., *Who Should Become Teachers? Current Student Selection/Retention Policies of Teacher Education Institutions*, Bowling Green University Press, Bowling Green, 1976.

Bruner, J.S., *Toward a Theory of Instruction*. Norton, New York, 1966.

Case, R., "A Developmentally Based Theory and Technology of Instruction." *Review of Educational Research* (48), Summer, 1978.

Charters, W.W., Jr., "Some Factors Affecting Teacher Survival In School Districts," *American Educational Research Journal*, (7), 1970.

Cohen, David, *A Study of the Academic Qualifications of Students Recommended for Basic Teaching Credentials*. unpublished report, California State University, Bakersfield, 1984.

Commission on Teacher Credentialing, "Teacher Preparation in Transition," *Twelfth Annual Report*, Sacramento, 1982-1983.

Cowan, P.A., *Piaget With Feeling*. Holt, Rinehart, and Winston, New York, 1978.

Dejnozka, E.L. and L.R. Smiley, "Selective Admissions Criteria in Graduate Teacher Education Programs," *Journal of Teacher Education*, January-February, 1983.

Denemark, G. and N. Nutter, *The Case for Extended Programs of Initial Teacher Preparation*, National Institute of Education, Washington, D.C., 1980.

Denham, Carolyn and Ann Lieberman, *Time to Learn*, N.I.E., Washington, D.C., 1980.

Dewey, John, *Democracy and Education*. Free Press, New York, 1966.

Drummond, William and Theodore Andrews, "The Influence of Federal and State Governments on Teacher Education." *Phi Delta Kappan*, October, 1980.

Elias, Patricia and Frederick J. McDonald, *Study of Induction Programs for Beginning Teachers*, Educational Testing Service, Berkeley, 1982.

Evendon, E.S., *Survey of Teacher Education*. U.S. Office of Education, Washington, D.C., 1933.

Feister, C.E., R.J. McMillan, and C.J. Lewis, *The 1980 Report of Educational Personnel Development*. Feister Publications, New York, 1980.

Field Institute, *The California Poll*, March, 1981.

Flexner, Abraham, *Medical Education in the United States and Canada*, Carnegie Foundation for the Advancement of Teaching, Washington, D.C., 1910.

Gallup, George H., "The Fourteenth Annual Gallup Poll of the Public's Attitude Toward the Public Schools," *Phi Delta Kappan*, September, 1982.

Gideonse, Hendrick D.,"The Necessary Revolution in Teacher Education," *Phi Delta Kappan*, September, 1982.

Gifford, Bernard R. and Glenn Seaborg, "Research Universities and the Improvement of Precollegiate Science and Mathematics Education: Building a New Linkage Between Theory and Practice," Unpublished Report, University of California, Berkeley, 1983.

Gifford, Bernard R., "Whither America's Technological Superiority? The Crisis in Precollegiate Mathematics and Science Education," address to the Harvard Club of San Francisco, May 10, 1983.

Griffiths, Susan L., *Conditions of Organizational Decline: Responses of Experienced ex-Teachers and Current Teachers*, doctoral dissertation, Stanford University, Palo Alto, 1983.

Guthrie, James W. and Ami Zusman, *Mathematics and Science Teacher Shortages: What Can California Do*?, Insititute of Governmental Studies, University of California, Berkeley, 1982.

Guthrie, James W., "Enhancing the Education Profession in California: An Unfinished Agenda," *Testimony before the California Assembly Education Committee*, October 13, 1983.

Haisley, F.B., R.D. Gilberts, and E.M. Kehl, *A Planning Document for Revised Elementary and Secondary Teacher Preparation Programs* University of Oregon, College of Education, Eugene, 1983.

Hull, R., R. Baker, J. Kyle, and R. Goad, *Research on Student Teaching: A Question of Transfer*, University of Oregon, Eugene, 1983.

Hunt, D.W., "Induction: An Opportunity and a Responsibility," *NASSP Bulletin*, (52), 1968.

Joyce, B. and B. Showers, "The Coaching of Teaching," *The Educational Digest*, January, 1983.

Judge, H., *American Graduate Schools of Education: A View From Abroad*. Ford Foundation, New York, 1982.

Karplus,R., and M.D. Thier, *A New Look at Elementary School Science*. Rand McNally, Chicago, 1967.

Kehl, Edna M., *The Effects of a First-Year Induction Program on Teacher Competence*, doctoral dissertation, University of Oregon, Eugene, 1981.

Kerr, Donna H., "Teacher Competence and Teacher Education in the United States," *Teachers College Record*, Spring, 1983.

Kirst, M.W., "Loss of Support for Public Secondary Schools: Some Causes and Solutions," *Daedulus*, Summer, 1981.

Lakin, K.C. and M.C. Reynolds, "Curricular Implications of Public Law 94-142 for Teacher Education," *Journal of Teacher Education*, March-April, 1983.

Lemon, A.E. and D.E. Reeves, "Admission to Teacher Education Programs: The Status and Trends," *Journal of Teacher Education*, January-February, 1983.

Lane, Kenneth S., *Professional Licensure in Teaching: A History of California's Ryan Act*. unpublished Ph.D. dissertation, Berkeley, University of California, 1979.

Lightfoot, Sarah Lawrence, "The Lives of Teachers," in *Handbook of Teaching and Policy*, Gary Sykes and Lee Shulman(eds.), Longmans, New York, 1983.

Lortie, Dan C., *Schoolteacher*. University of Chicago Press, Chicago, 1975.

Lutz, J.P., "Looking Forward By Looking Backward," *Phi Delta Kappan*, February, 1983.

Lyons, G., "Why Teachers Can't Teach," *Phi Delta Kappan*, October, 1980.

Martin, E.R., "Who Are Our Teacher Education Students?" *Journal of Teacher Education*, January-February, 1983.

McDonald, F.J. and P.J. Elias, *The Effects of Teaching Performance on Pupil Learning*. Educational Testing Service, Princeton, 1975a.

McDonald, F.J., *Beginning Teacher Evaluation Study: Phase II*, Educational Testing Service, Princeton, 1975b.

Medina, David, "1,500 Teachers Looked and Ran," *New York Daily News*, February 8, 1984.

Morey, A.I., *Excellence in Professional Education*, California State University, Long Beach, 1983.

N.E.A. Reporter, *A Closer Look at Teacher Education*, N.E.A., Washington, D.C., 1982.

National Commission on Excellence in Eduction, *A Nation At Risk: The Imperative for Educational Reform*, U.S. Department of Education, Washington, D.C., 1983.

National Education Association, *Teacher Supply and Demand in Public Schools, 1980-1981, with Population Trends and Their Implications for Schools*, N.E.A., Washington, D.C., 1981.

Newport, J.F., "Let's Admit We Can't Train Teachers --- And Ask For Help," *Phi Delta Kappan*, October, 1983.

Nuffield Mathematics Project, *I Do, and I Understand*. Newgate Press, London, 1967.

Nuffield Mathematics Project, *Mathematics: The First Three Years*. Newgate Press, London, 1970.

Nuffield Methematics Project, *The Later Primary Years*. Wiley, New York, 1972.

Ornstein,A.C., and H.L. Fuller, *Looking Into Teaching: An Introduction to American Education*. Rand McNally, Chicago, 1980.

Pataniczek, Dennis and N.S. Isaacson, "The Relationship of Socialization and the Concerns of Beginning Secondary Teachers," *Journal of Teacher Education*, May-June, 1981.

Piaget, Jean, "Piaget's Theory," in *Carmichael's Manual of Child Psychology*. P.H. Mussen(ed.), Wiley and Sons, New York, 1970.

Renner, J.W. and D.G. Stafford, *Teaching Science in the Secondary School*. Harper and kRow, New York, 1972.

Reynolds, Anne, *Chancellor Reynolds' Testimony Before the Assembly Education Interim Committee*, November, 1983.

Rutter, M.R. et al., *Fifteen Thousand Hours: Secondary Schools and Their Effects on Children*, Harvard University Press, Cambridge, 1980.

Schlechty, P.C. and V.S. Vance, "Institutional Responses to the Quality/Quantity Issue in Teacher Training," *Phi Delta Kappan*, October, 1983.

Schwanke, D., *Fact Sheet*, ERIC Clearinghouse on Teacher Education, Washington, D.C.,July, 1982.

Shanker, Albert, and J.G. Ward, "Teacher Competency and Testing: A Natural Affinity," *Educational Measurement: Issues and Practice*, 1982.

Smelser, Neil J.(Chairman), *Report of the Commission on Education*, Chancellor's Office, University of California, Berkeley, 1981.

Smith, B. Othanel, "Pedagogical Education: How About Reform?", *Phi Delta Kappan*, October, 1980a.

Smith, D.C., and Sue Street, "The Professional Component in Selected Professions," *Phi Delta Kappan*, October, 1980b.

Smith, Jane P., "Preparing and Grading Essay Examinations in California," *The Bar Examiner*. February, 1983a.

Smith, Sandra, *Improving the Attractiveness of the K-12 Teaching Profession in California*, California Round Table on Educational Opportunity, 1983b.

Southall, C., *Trends in Student Teacher Evaluation in Selected Midwestern States*. unpublished manuscript, College of Education, University of Missouri, Columbia, 1982.

Stark, J.S., "The Highest Common Denominator," *Innovator*. School of Education, University of Michigan, July 7, 1980.

Stinnet, T.M., *A Manual of Standards Affecting School Personnel in the U.S.* National Education Association, Washington, D.C., 1974.

Sykes, Gary, "Contradictions, Ironies, and Promises Unfulfilled: A Contemporary Account of the Status of Teaching," *Phi Delta Kappan*, October, 1983.

Watt, Doyle, "Admission Standards for Teacher Preparatory Programs: Time for Change." *Phi Delta Kappan*, October, 1980.

Weaver, W.T., "The Talent Pool in Teacher Education," *Journal of Teacher Education*, May-June, 1981.

Wimpelberg, R.J. and J.A. King, "Rethinking Teacher Recruitment," *Journal of Teacher Education*. January-February, 1983.